

SUSANA MARTINEZ Governor

JOHN A. SANCHEZ Lt. Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

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BUTCH TONGATE Cabinet Secretary

J. C. BORREGO Deputy Secretary

Certified Mail - Return Receipt Requested

September 6, 2018

Mr. Michael Coats, Area Manager Chevron Mining Inc., Questa Mine P. O. Box 469 Questa, NM 87556

Re: Chevron Mining, Inc. (CMI), Questa Mine; Major Individual Permit; SIC 1061; NPDES Compliance Evaluation Inspection (CEI); NM0022306; July 24 thru July 26, 2018

Dear Mr. Coats:

Enclosed please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

David Long NPDES Enforcement Coordinator Environmental Protection Agency, Region 6 NPDES Enforcement Branch (6EN-WM) 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202-2733 Sarah Holcomb, Program Manager New Mexico Environment Department Surface Water Quality Bureau (N2050) Point Source Regulation Section P.O. Box 5469 Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Erin Trujillo at 505-827-0418 or at erin.trujillo@state.nm.us.

Mr. Michael Coats, Chevron Mining Inc., Questa Mine, NM0022306 September 6, 2018 Page 2 of 2

Sincerely,

/s/Sarah Holcomb

Sarah Holcomb Program Manager Point Source Regulation Section Surface Water Quality Bureau

cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail

Nancy Williams, USEPA (6EN-WC) by e-mail

David Long, USEPA (6EN-WM) by e-mail

Robert Houston, USEPA (6EN-WS) by e-mail

David Esparza, USEPA (6EN-WM) by e-mail

Amy Andrews, USEPA (6EN-WM) by e-mail

Tony Loston, USEPA (6EN-WM) by e-mail

Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail

Gary Baumgarten, USEPA (6SF-RA) by e-mail

Robert Italiano, NMED District II by e-mail

Anne Mauer, Chevron-Questa Mine Permit Lead, NMED GWQB by e-mail

Joseph C. Fox, NMED GWQB by e-mail

Armando Martinez, Chevron EMC by e-mail

Jeff Schoenbacker, Chevron EMC by e-mail

Form Approved OMB No. 2040-0003 Approval Expires 7-31-85



NPDES Compliance Inspection Report

				Section A: N	ational D	ata Sy	ystem Codi	ng							
1	Transaction Code N 2 5 3 N M 0		NPDES 2 2 3	0 6	11 12	1	8 0	yr/mo/d	lay 2	4	17	î	с. Туре С	Inspector Fac Type 19 S 20 2	е
<u>[</u>	C L O S E D Inspection Work Days 67 69		M O L Y Facility Evaluation Ra 70 2	nting	Rema E N BI 71 N	U	M QA N 73	M	I	N 74	E 75		& eserved-	M I L L	
	Section B: Facility Data														
Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Chevron Mining Inc. (CMI), Questa Mine, Main office 3.5 miles east of							8			Effective Date mber 1, 2013					
Questa, NM, north side of NM 38. Tailings facility exists west of NM 522 in Questa, NM. Taos County. Exit Time/Date ~1630 hrs / 07/24/2018 ~1630 hrs / 07/25/2018 ~1245 hrs / 07/26/2018							8		Octob	Expiration Date per 31, 2018					
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) -Armando Martinez, Env. Manager, Chevron Env. Management Company (EMC) / 575-586-7639 -Jeff Schoenbacker, Project Manager, Chevron EMC / 575-586-7537 -Frank Robinson, Site Manager, Water Treatment Plant, Golder Associates, Inc. / 505-492-1023 -Gabe Herrera, Chevron EMC -Jim Cox, Chevron Project Manager/Contractor Name, Address of Responsible Official/Title/Phone and Fax Number -Mr. Michael Coats, Area Manager, Chevron Mining Inc., Questa Mine, P. O. Box 469, Questa, NM 87556 / 575-586-7521, Fax 575-586-0811								Adm	89328	y Data tive Mine Office Entrance 3°, -105.540013°	<u>e</u>				
			Sec (S = Satisfacto	ction C: Area					Evalua	ted)					
M	Permit	M	Flow Measurement	•	M	1	erations &				T	N C	CSO/SS	0	_
M	Records/Reports	U	Self-Monitoring Pr		N	1 1	udge Hand			•	-			n Prevention	
N	Facility Site Review	N	Compliance Schedu	_	N	1	etreatmen	Ü	эрози				Aultime		
U	Effluent/Receiving Waters	U	Laboratory		N	1	orm Water						Other:		
			Section D: Summary	of Findings/	Commen	1			eets if	necess	ary)				
 The mining and mill operations have closed. Decommission, demolition, industrial water treatment operations and reclamation operations at the facility are active. See attached checklist report and further explanations. 															
Name(s) and Signature(s) of Inspector(s) Erin S. Trujillo /s/Erin S. Trujillo				Agency/Office/Telephone/Fax NMED/SWQB/505-827-0418					Date 09/05	/2018					
	nature of Management QA Reviewer nnifer Foote /s/Jennifer Foot			Agency/Office/Phone and Fax Numbers NMED/SWQB/505-827-0596					Date 09/06	/2018					

CMI, Inc. – Questa Mine – July 24 thru 26, 2018	PERMIT NO. NM0022306
SECTION A - PERMIT VERIFICATION	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☐ S ☒ M ☐ U ☐ NA (FURTHER DETAILS: Permittee submitted renewal application dated April 30, 2018. See Further Explana	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	⊠ y □ n □ na
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES.	□ y □ n ⊠ na
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT.	⊠ y □ n □ na
4. ALL DISCHARGES ARE PERMITTED.	⊠ y □ n □ na
SECTION B - RECORDKEEPING AND REPORTING EVALUATION	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. □ S ☒ M □ U □ NA (FURTION DETAILS: USEPA NetDMR subscriber agreement approved 06/27/2011 and DMRs submitted (Control of the Control	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. See Further Explanations	□y⊠n□na
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	⊠ s □ m □ u □ na
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING.	⊠ y □ n □ na
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	⊠ y □ n □ na
c) ANALYTICAL METHODS AND TECHNIQUES.	⊠ y □ n □ na
d) RESULTS OF ANALYSES AND CALIBRATIONS.	⊠ y □ n □ na
e) DATES AND TIMES OF ANALYSES. Contract laboratory time of analyses	□ y ⊠ n □ na
f) NAME OF PERSON(S) PERFORMING ANALYSES. Contract laboratory name	□y⊠n□nA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	⊠ S □ M □ U □ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	⊠ S □ M □ U □ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	⊠ y □ n □ na
SECTION C - OPERATIONS AND MAINTENANCE	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS: WTP = Satisfactory. For water collection systems, outages continue. Yearly mainted system scheduled for September 2018. See Further Explanations Section A & Section O for	enance for spring interception
1. TREATMENT UNITS PROPERLY OPERATED.	⊠s □ m □ u □ na
2. TREATMENT UNITS PROPERLY MAINTAINED. See Photo Documentation for WTP Clarifier Weir	\square S \boxtimes M \square U \square NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. See Further Explanations	\square S \boxtimes M \square U \square NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. Daily inspections logged	⊠s □ m □ u □ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE.	⊠s □m □u □na
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	⊠s □m □u □na
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	⊠s □m □u □na
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. See Further Explanations STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. WTP upset cell	⊠Y□N□NA ⊠Y□N□NA ⊠Y□N□NA

CMI, Inc. – Questa Mine – July 24 thru 26, 2018	PERMIT NO. NM0022306
SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)	
9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	□ y ⊠ n □ na □ y □ n ⊠ na □ y □ n ⊠ na
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	□ y ⊠ n □ na □ y □ n ⊠ na
SECTION D - SELF-MONITORING	
PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.	THER EXPLANATION ATTACHED <u>Yes</u>).
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	⊠ y □ n □ na
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	⊠ y □ n □ na
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	⊠ y □ n □ na
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	⊠ y □ n □ na
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	⊠ y □ n □ na
6. SAMPLE COLLECTION PROCEDURES ADEQUATE.	□ y ⊠ n □ na
a) SAMPLES REFRIGERATED DURING COMPOSITING.	⊠ y □ n □ na
b) PROPER PRESERVATION TECHNIQUES USED. Not documented / See Further Explanations	□ y ⊠ n □ na
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	⊠ y □ n □ na
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ${f pH}$	⊠ y □ n □ na
SECTION E - FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. □ S ☒ M □ U □ NA (FURTHER EDETAILS: Outfall 004 and Outfall 005 flow measurement devices are weir in Part I.A of Permi & 005. See Further Explanations Section A / Section E for Outfalls 004 & 005.	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE Magnetic Flow Meter	⊠ y □ n □ na
Communication data gaps reported 2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. July 6, 2017 (06/12/2017) and June 5, 2018 (5/29-	5/31/2018) □ y ⊠ n □ na/
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	⊠ y □ n □ na
4. CALIBRATION FREQUENCY ADEQUATE. RECORDS MAINTAINED OF CALIBRATION PROCEDURES. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	□ y □ n ⊠ NA □ y □ n ⊠ NA □ y □ n ⊠ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	□ y □ n ⊠ na
6. HEAD MEASURED AT PROPER LOCATION.	□ y □ n ⊠ na
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	⊠ y □ n □ na
SECTION F – LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. □ S □ M ☒ U □ NA (FURTHER E DETAILS: Contract commercial laboratories not inspected. Permittee conducts pH monitoring	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES). Some effluent ch	

CMI, Inc. – Questa Mine – July 24 thru 26, 2018				PERM	PERMIT NO. NM0022306			
SECTION F - LAI	SECTION F - LABORATORY (CONT'D)							
2. IF ALTERNATIVE	2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. Not documented							
3. SATISFACTORY O	3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.							
4. QUALITY CONTR	OL PROCEDURES ADEC	QUATE. See Furth	er Explanation				□ NA	
5. DUPLICATE SAM	5. DUPLICATE SAMPLES ARE ANALYZED. 100 % (pH) / 100 % (Lab), 1/qtr % of the time.							
6. SPIKED SAMPLES	6. SPIKED SAMPLES ARE ANALYZED. 100 (Laboratory) % OF THE TIME.							
7. COMMERCIAL LA	ABORATORY USED.					\boxtimes Y \square N	□ na	
LAB ADDRESS 22								
SECTION G - EFI	FLUENT/RECEIVING	G WATERS OBSER	VATIONS.	s □ m ⊠ u □ N	A (FURTHER EXPLANATI	ON ATTACHED Yes).		
OUTFALL NO. new 001 002 004 005	OIL SHEEN None Not observed No discharge No discharge	None Not observed No discharge No discharge	TURBIDITY Clear Not observed No discharge No discharge	VISIBLE FOAM None Not observed No discharge No discharge	FLOAT SOL. None Not observed No discharge No discharge	COLOR None Not observed No discharge No discharge	OTHER NA NA NA NA NA	
		Turther Explana	ations / 1 note do	<u>cumentation</u>				
	SLUDGE DISPOSAL SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. DETAILS: SECTION H - SLUDGE DISPOSAL SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. DETAILS:							
1. SLUDGE MANAC	GEMENT ADEQUATE TO	MAINTAIN EFFLUEN	T QUALITY.			□ ѕ □ м □ ∪ [
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.						⊠ NA		
3. FOR LAND APPL	IED SLUDGE, TYPE OF I	LAND APPLIED TO:	NA (e.g., F	FOREST, AGRICULTURA	AL, PUBLIC CONTACT	SITE)		
SECTION I - SAM	MPLING INSPECTIO	N PROCEDURES	(FURTHER EXPLANATION	N ATTACHED <u>No</u>).				
1. SAMPLES OBTAI	NED THIS INSPECTION					\square Y \square N	× NA	
2. TYPE OF SAMPLE	E OBTAINED							
GRAB	GRAB COMPOSITE SAMPLE METHOD FREQUENCY							
3. SAMPLES PRESERVED. □ Y □ N ☒ NA								
4. FLOW PROPORTIONED SAMPLES OBTAINED.								
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.								
6. SAMPLE REPRES	SENTATIVE OF VOLUMI	E AND MATURE OF DI	SCHARGE.			□Y□N		
7. SAMPLE SPLIT W	/ITH PERMITTEE.					□ y □ n		
8. CHAIN-OF-CUST	ODY PROCEDURES EM	PLOYED.				□ч□n	× NA	
9. SAMPLES COLLE	ECTED IN ACCORDANC	E WITH PERMIT.				\square Y \square N	× NA	

Chevron Mining Inc. - Questa Mine NPDES Permit No. NM0022306 Compliance Evaluation Inspection July 24 thru 26, 2018

Further Explanations

Introduction

On July 24, 25 and 26, 2018, an announced Compliance Evaluation Inspection (CEI) was conducted by Erin S. Trujillo of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the Chevron Mining Inc. (CMI), Questa Mine (formerly Molycorp) near the Village of Questa, Taos County, New Mexico. Ms. Trujillo was accompanied by Ms. Sarah Holcomb, Program Manager, Point Source Regulation Section, SWQB and Mr. Joseph Marcoline, Ground Water Quality Bureau (GWQB) both of the NMED during portions of this inspection. Questa Mine is classified as a major facility discharger under the federal Clean Water Act, Section 402 NPDES permit program and is assigned permit number NM0022306.

Upon arrival at the facility on July 24, 2016 at approximately 0945 hours, Ms. Trujillo made introductions, presented credentials, and discussed the purpose of the CEI with Mr. Armando Martinez, Environmental Manager and Mr. Jeff Schoenbacker, Project Manager, both of Chevron Environmental Management Company (Chevron EMC). Ms. Trujillo toured the site with Mr. Martinez and other Permittee Representatives. Ms. Trujillo conducted a brief exit interview on site at CMI's offices to discuss preliminary findings with Mr. Martinez and Mr. Schoenbacker. Ms. Trujillo left the facility at approximately 1245 hours on July 26, 2018.

NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA) each year. This report is based on review of files maintained by the permittee and NMED, on-site observation by NMED personnel, and verbal and follow up e-mail information provided by the permittee's representatives. A separate NPDES CEI report for Industrial Stormwater Multi-Sector General Permit (MSGP) Tracking No. NMR053300 was submitted under a separate EPA Form 3560.

Background

The mine operated intermittently from 1920 until 2014. Open pit mining and milling took place at the facility from 1965 to 1983. Facilities include underground molybdenum mine, mill area, tailing disposal impoundments (tailing facility), historic open pit and massive waste rock piles. Acid-generating waste rock were excavated and deposited in nine large waste rock piles. Rock piles, approximately 328 million tons on 750 acres at the mine site include Capulin, Goathill North, Goathill South, Sugar Shack West, Sugar Shack South, Middle, Sulphur Gulch South, Spring Gulch and Sulphur Gulch North / Blind Gulch. After molybdenum was extracted from ore, the tailing was transported by pipeline to a tailing facility where it was deposited in tailing impoundments for disposal. Mining operations and waste disposal contaminated soil, sediment, surface water and groundwater. USEPA re-proposed the Molycorp, Inc. site to the National Priorities List (NPL) of Superfund Sites in March 2011. The site was placed on the NPL on September 16, 2011. Delivery of process water and tailing from the mill at the mine to the tailings facility stopped in October 2012. CMI announced the cessation of mining operations at the Questa Mine on June 2, 2014. Delivery of process water to the Tailings Facility Dam No. 4 impoundment continued until May 2017 when all water delivery to the tailings facility ceased. Closeout activities continue with phased decommissioning and demolition of selected surface facilities at the Mill Area, Mine Area, and Tailing Facility. Mine reclamation activities have not been completed.

USEPA Region 6, Record of Decision (ROD), Molycorp, Inc., Questa, New Mexico, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) ID No: NMD002899094, dated December 20, 2010 is the decision document that presents the "Selected Remedy" for the Site chosen in accordance with Comprehensive Environmental Response, Compensation, and

Liability Act of 1980 (CERCLA) and National Oil and Hazardous Substances Pollution Contingency Plan. USEPA decided to continue or proceed with NPDES permitting for some discharges under the Selected Remedy. Other permits for the Questa Mine activities include NMED Groundwater Quality Bureau (GWQB) ground water discharge permits DP-1055 (waste rock stockpiles), DP-1539 (water management systems) and DP-933 (tailings impoundment), and the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) Mining and Minerals Division (MMD) permit.

The facility is located in the watershed of the Red River which includes several tributaries, including Sulfur Gulch, Spring Gulch, Goathill Gulch and Capulin Canyon. Discharges from four outfalls (Outfalls 002, 004, and 005 and new Outfall 001) are authorized by the USEPA NPDES Permit No. NM0022306 to Red River in *State of New Mexico Standards for Interstate and Intrastate Surface Waters* Segment 20.6.4.122 New Mexico Administrative Code (NMAC) of the Rio Grande Basin. Designated uses for this segment of Red River are coldwater aquatic life, fish culture, irrigation, livestock watering, wildlife habitat and primary contact.

Questa Mine's NPDES Permit is available at https://www.env.nm.gov/swqb/NPDES/Permits/NM0022306-Chevron-Questa.pdf. Further summary of the site background, activities, CERCLA selected remedy and relationship to NPDES authorized discharges, authorized outfalls, seepage interception systems and ground water withdrawal was provided in the September 2014 and September 2015 NPDES CEI reports and June-July 2016 Reconnaissance Inspection reports available at:

https://www.env.nm.gov/swqb/NPDES/Inspections/NM0022306-20140923.pdf

https://www.env.nm.gov/swqb/NPDES/Inspections/NM0022306-20150928.pdf

https://www.env.nm.gov/swqb/NPDES/Inspections/NM0022306-20160602.pdf

Outfall 002

Outfall 002 is located at the tailings facility and discharges seepage interception system collected waters from the tailing impoundments. Additional upgrades and improvements include new extraction wells added to the existing seepage interception system south of Dam No. 1 and on the eastern flank of Dam No. 4, and an existing seepage barrier will be refurbished and brought back online. A new groundwater extraction system south of the former Dry Maintenance area will be designed and installed to control a molybdenum plume in that area. In January 2004, CMI began operation of a pumpback system to reduce the manganese load discharged at Outfall 002. The pumpback system consists of a new manhole, and the extraction wells, rock-fill drains, and toe drain at the base of Dam No. 1 were replumbed and now discharge into the pumpback manhole. The collected water has not been part of the Outfall 002 discharge, but instead has been pumped northward over Dam No. 1 and discharges into the decant pond on the western side of the tailings facility. Water entering the pumpback is plumbed to the existing Outfall 002 collection manhole then to the Red River.

Outfall 004 and Outfall 005

Outfall 004 and Outfall 005 are permitted for potential stormwater discharge and have not reportedly discharge for the past two permit terms. Outfall 004 is located below a series of catchments in Goathill Gulch below the subsidence area and Outfall 005 is located in the former mill site area, now location of the WTP.

Best Management Practices

Operation and proper maintenance of Spring 13 and Spring 39 seepage interception systems and ground water withdrawal downgradient of the Sugar Shack waste rock pile are Best Management Practices (BMPs)

required under USEPA NPDES Permit No. NM022306 to comply with the prohibition against the discharge to the Red River of pollutants traceable to point source mine operations.

Outfall 001 / WTP Treatment Scheme

CERCLIS Statement of Work for the First Partial Remedial Design/Remedial Action Consent Decree entered May 1, 2017 required a Remedial Action Project Construction Completion Report for the water treatment plant and submitted to USEPA CERCLA after initial shakedown is completed. Preparation of an operations and Maintenance (O&M) Plan and O&M Manual for the water treatment plant was also required. New Outfall 001, located at the former mill site area and the location of the new water treatment plant (WTP), reportedly began discharge on July 6, 2017.

Collected Waters and WTP Overview: Collected waters from two natural springs adjacent to mine property (Spring 13 and Spring 39 collection systems), underground mine dewatering, groundwater withdrawal wells (GWWs) below rock piles (GWW-1, GWW-2, and GWW-3), and stormwater runoff is treated before discharge. Underground mine dewatering is pumped to an equalization tank and other collected waters are directed into a second equalization tank that feed the water treatment plant. Stormwater from the watershed above the plant, when present, is routed to an adjacent stormwater catchment and then pumped to the water treatment building as a third influent source. WTP equipment includes mix tanks, clarifiers, ultrafilters, nanofilters, storage tanks, filter presses, pumps, and chemical feed systems.

The treatment process consists of two nearly identical trains of chemical precipitation, clarification, and filtration. These trains operate in parallel to provide redundancy and to allow treatment of both collected water and stormwater simultaneously. Each train is sized to handle a nominal maximum influent flow of 1,600 gallons per minute (gpm). The primary treatment process (discussed below) consists of the following five steps or stages: 1) iron co-precipitation, 2) aluminum removal, 3) softening pre-treatment, 4) ultrafiltration, and 5) final pH adjustment. Secondary treatment (discussed below) consisting of nanofiltration, gypsum desaturation and carbonation stages have been installed and may be operated, if required. The treated water is pumped to two large effluent storage tanks and discharged to the Red River at Outfall 001. Off-spec water can be directed to the upset cell in the combined lined Stormwater Enhanced 005 Catchment / Upset Cell still under construction in the Mill Basin Project. WTP water from the effluent surge tanks can also be directed for utility water supply. A lined, dual-cell waste repository is located adjacent to the plant building for disposal of filter cake. A control room, laboratory, locker rooms, offices, and shop are also located within the building.

WTP Primary Treatment: The first stage of primary treatment is iron co-precipitation (ICP) where pH of the influent water is adjusted with ferric chloride to remove molybdenum. A pH of 4.0 to 4.5 standard units (s.u.) is considered optimal in the design, but molybdenum removal also occurs at higher pH. Equipment for the ICP process includes one reaction tank and subsequent clarifier. In the next stage in primary treatment is aluminum removal of waters from either the ICP treatment or raw water from the equalization tanks or stored stormwater. Stormwater may be treated in a separate train through the rest of the primary treatment stages. Lime is added to raise pH to approximately 6.5 to 7.0 s.u. Precipitated aluminum solids are settled and removed from the water in a clarifier. Aluminum removal also protects the subsequent ultrafilters and nanofilters from excessive scaling. After aluminum removal, flow is gravity fed to a softening stage where pH is raised to 9.5 to 10.5 s.u. by the addition of lime to remove manganese and other metals. Softening also protects the ultrafilters and nanofilters from potential excessive scaling. After softening, flow is passed through a series of ultrafilters to remove fine particulate matter, including precipitated metal compounds. Filtrate from the ultrafilters is sent to the effluent surge tanks and carbonic acid is dosed to reduce pH in the effluent discharge. Water from the effluent surge tanks is sent to the effluent storage tanks for discharge to the Red River.

<u>WTP Secondary Treatment:</u> The nanofilters of the installed secondary treatment are designed to remove dissolved constituents and sulfate. Filtrate from the nanofiltration system would be adjusted to a neutral pH around 7.0 s.u. with carbonic acid and sent to surge tanks and storage tanks prior to discharge. The brine concentrate from nanofiltration would be sent to a gypsum desaturation stage where ferrous or ferric chloride

may be added as needed to accelerate gypsum precipitation. This chemical addition would deactivate the antiscalant added in the filtration, as well as target selenium removal. The gypsum-rich solids precipitated would be removed by clarification. The two treatment trains are designed to receive effluent from the gypsum desaturation that is recycled back to the aluminum removal system for sulfate removal, and to minimize the amount of concentrate that is sent to the discharge. After gypsum desaturation, carbonation would be added for pH adjustment and calcium removal. If needed, carbonic acid would be added to reduce total dissolved solids. Carbonation includes a lamella clarifier to remove precipitate formed by carbonation. Carbonation effluent would be blended with nanofiltration permeate in surge tanks before being sent to the effluent storage tanks for discharge to the Red River.

<u>WTP Solids Removal:</u> Sludge from collected and stormwater aluminum removal and lime pretreatment; and, if used, gypsum desaturation, enter a thickener stage before sludge storage tanks. Sludge from the ICP stage enter a separate sludge storage tank. The WTP facility includes filter presses. Filtrate returns to a backwash tank. Solids are dropped to roll offs then stored on site in one of two (one cell is for low pH) sludge containment cells.

Compliance Schedules/USEPA Closed Administrative Orders

Part I.B of the 2013 NPDES Permit included a compliance schedule to "[t]otally cease conveying mill process wastewater, mine drainage, and captured groundwater or spring water to tailings facility" and "[c]omply with the effluent limitations established at Outfall 001" by October 1, 2016. USEPA issued Administrative Order (AO), Docket Number CWA-06-2017-1708 dated November 18, 2016 for "unauthorized discharges" with a compliance report deadline of December 2, 2016. USEPA issued AO Docket Number CWA-06-2017-1728 on February 8, 2017 for "the violations alleged are for the resumption of discharges of waste streams to the tailings facility...alleged violations are for unauthorized discharges." CWA-06-2017-1728 AO included a deadline for the complete construction of wastewater treatment plant on February 20, 2017; and cease conveying mill process wastewater, mine drainage, captured ground water, and spring water to tailings facility on June 9, 2017. Discharges to the tailings facility ceased in July 2017. The WTP was completed and discharges to the new Outfall was reported to start on July 6, 2017. USEPA's letter dated March 20, 2018 states that the 2017 AO is "hereby closed."

<u>Section A - Permit Verification (See Section C O&M for BMPs and Section E Flow Measurement for Outfalls 004 and 005) – All Marginal</u>

Duty of Reapply Permit Requirements and Findings

o Part III.A.4 (General Conditions, Duty to Reapply) of the 2013 NPDES Permit states "If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit."

Permittee submitted renewal application to USEPA Region 6 2013 Permit Writer dated April 30, 2018 (six months, but greater than 180 days before the permit expires on October 31, 2018). USEPA issued an administratively complete letter dated May 25, 2018.

<u>Spring 13 and Spring 39 Interception System and Ground Water Well System Permit Requirements and Repeat/Continued Findings</u>

O Updates, specification and/or clarification of requirements for the BMP conditions appear needed in the NPDES Permit.

<u>Permit Requirements</u>: Part II.D. Best Management Practices of the 2013 NPDES Permit for the spring interception systems and groundwater wells states "This permit prohibits the discharge to the Red River of pollutants traceable to point source mine operations except in trace amounts" and "[i]mplementation

of these Best Management Practices...is considered compliance with this prohibition." Part II.D of the NPDES Permit states "The permittee shall also properly operate the ground water withdrawal well below the toe of the Sugar Shack South deposit at a location approximately 100 yards southwest of the old mill site." Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the 2013 NPDES Permit states "The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit... This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit."

Non-compliance report and recordkeeping requirements in the 2013 NPDES Permit include Part III.D.11 (signatory requirements), Part III.D.7.b and c (steps and waiving each written report), and Part III.B.4 (specific conditions and allowances).

Findings/Additional Information: Permit Verification, Reports & Record Keeping and Operations & Maintenance findings for the decreased pumping rates of the interception systems and visible white aluminum hydroxide precipitates at Spring 13 and Spring 39 were discussed in the 2015 NPDES CEI and 2016 NPDES RI reports. Not all current or planned groundwater wells are described in the 2013 NPDES Permit. Related to effectiveness, CMI's 2018 NPDES Renewal Application April 30, 2018, GEI, Technical Memorandum, Supplemental Information, Section 3.1 Mine Site states "The Spring 13 and Spring 39 systems were found to remove little mass of constituents and have had a near negligible impact on the river water quality due to reduced concentrations at the Spring 39 system and low collection rates from iron precipitate fouling at the Spring 13 system." Temporary shut downs or outages of all or portions of the seepage interception and groundwater withdrawal well systems continue due to maintenance, construction, and electrical problems. A summary of reported planned and unplanned outages submitted by Permittee Representatives by e-mail since the 2016 NPDES RI report is attached. Reviewed e-mail notifications for outages / possible non-compliance did not include steps being taken to reduce, eliminate, and prevent recurrence (see Part III.D.7.b of the 2013 NPDES Permit).

Outfall 004 and Outfall 005 Location and Flow Measurement Accuracy

Additional clarification or information (e.g., discharge tables or model calculations) may be needed to confirm that the flow measurements for Outfall 004 and Outfall 005 meet accuracy requirements of the NPDES Permit. Additional clarification appears needed to describe discharge locations in the NPDES Permit.

<u>Permit Requirements</u>: Location of the measurement locations for Outfall 004 and Outfall 005 is provided in the 2013 NPDES Permit. Flow Type in Part I.A for Outfalls 004 and 005 states "*Measure by Weir*." Part III.D.6 (flow measurements) of the 2013 NPDES Permit states:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

<u>Findings/Additional Information</u>: CMI's 2018 NPDES Renewal Application Form 2C does not provide estimate average flow for Outfall 004 or Outfall 005. Outfall 004 has a weir installed in a shallow channel (2014 NPDES CEI report). The 2018 NPDES Renewal Application describes changes to the Outfall 005 catchment basin and flow measurement which are under construction. The Enhanced Outfall 005 Catchment is a concrete-lined stormwater storage facility that also has a connection by a spillway to the WTP upset cell. Collected water that exceeds the storage capacity of the catchment (100-year 24-

hour event) water would discharge over the spillway to Outfall 005. The application describes that the spillway is 400 ft long, protected with D50 riprap, three (3) feet below the catchment crest. The spillway was designed to function as a broad-crested weir. There is no channel described for the weir. The renewal application states that "A staff gage will be installed as part of the Enhanced 005 Catchment that can be used to measure the depth of water flowing over the spillway and thereby estimate the discharge from the spillway." The 2018 Renewal Application describes that the discharge from the spillway would enter the Red River at the previous Outfall 005 location. Figure 1 of the 2018 NPDES Renewal Application does not show where a 400-foot wide discharge would cross under highway NM 38 and enter Red River.

Outfall 002/003 Seepage Interception System Upgrade

Part I of the 2013 NPDES Permit includes both loading and concentration effluent limitations and monitoring. Part III.D.I.a (Reporting Requirements, Planned Changes, Industrial Permits) of the 2013 NPDES Permit states "The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility...."

Loading information is discussed for the upgrades to the Outfall 002/003 seepage interception system in the 2018 Renewal Application (Appendix D, Water Management Update and Evaluation of Best Management Practices, Arcadis U.S., Inc., April 20, 2018). However, more information on the specific quantities and concentrations (nature or quantity of pollutants), which were used to estimate loading may be needed for Outfall 002.

<u>Section B – Record Keeping and Reporting – Marginal</u>

Permit Requirements

Part III.C.4 (Monitoring and Records, Record Contents) of the 2013 NPDES Permit states

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- *d.* The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

Findings

- o Reviewed contract laboratory analysis reports did not record the time of analyses or the name of the person(s) performing analyses.
- Reviewed analytical results were not consistent with data reported on Discharge Monitoring Results (DMRs).

Part I.A (Effluent Limitations and Monitoring Requirements, Outfall 002) in the 2013 NPDES Permit include a TSS Daily Max concentration of 30 mg/L. For monitoring results on the June 2016 DMR, the TSS Daily Max was reported as less than (<), but the result was described as a detected concentration (63 mg/L) in non-compliance reporting. No averaging or calculations are used when reporting valid daily max concentrations.

Part I.A and Part II in the 2013 NPDES Permit require monitoring and reporting of whole effluent toxicity (WET) testing. Conditional retests were not accurately reported on DMRs for Outfall 001 and

Outfall 002 based on information from the Permittee Representatives. All conditional retest reporting (#1, #2 and #3) for monitoring location TX1Q and TX2Q should be reviewed and corrected, as needed.

Additional Information: For WET testing retests, a "1" is entered if the No Observed Effects Concentration (NOEC) for survival and/or sub-lethal effects is less than the critical dilution; otherwise "0" is entered on the DMR. Reporting "1" or "0" indicates a retest was conducted. After discharges started in July 2017 thru June 2018, monthly Outfall 001 WET quarterly retests were reported as "0" indicating that a WET retest was conducted. Permittee Representatives described that no retests were required or conducted thru June 2018. Outfall 002 WET quarterly retests (TX2Q) were shown as "Not Received" on USEPA's summary reports. Permittee representatives may contact USEPA NetDMR contacts if there are questions on "no discharge" or in this case no data reporting or receipt of DMRs submitted electronically. A list of No Discharge/No Data (NODI) codes obtained August 2018 from USEPA R6 NetDMR contacts is attached. For example, NODI Code 9 indicates Conditional Monitoring-Not required this period.

Additional Comments

Comments added to the June 2018 WET testing DMR provide additional information on the effect threshold concentration (IC25) of 68% effluent. IC25 value is a statistical calculation of the effluent concentration which causes a 25% reduction in growth or reproduction of test organisms. IC25 results are not required to be reported by USEPA Region 6 in the State of New Mexico. Comments added to the Outfall 001 June 2018 WET testing DMR also include questions requesting clarifications on permit language for Toxic Reduction Evaluations (TREs). The Permittee would need to submit a written request or contact the USEPA Permit Writer directly to receive clarification and confirmation on percent effluent requirements for sub-lethal TRE.

Section D – Self Monitoring and Section F Laboratory – Both Unsatisfactory

Permit Requirements

- o Part I.A (Monitoring Requirements, Outfall 002) in the 2013 NPDES Permit require annual 24-hour composite monitoring and reporting for dissolved uranium and quarterly 24-hour composite monitoring and reporting for total cyanide.
- Part I.D (Effluent Characteristic Analysis for New Discharges, Outfall 001) of the 2013 NPDES Permit states "beginning the start-up of the new water treatment and lasting through the expiration date of the permit, the permittee shall collect samples at Outfall 001 once per calendar year, during the period of mill operations, for analysis of effluent characteristics as listed below. Samples shall be taken at least six months apart or longer. The first sample shall be taken within the 30 days of first commencing discharge after the final compliance schedule." Parameter categories include Radioactivity, Nutrients, and Chlorine; Volatile Compounds; Acid Compounds; Base/Neutral Compounds; and Pesticides and PCBs. Part I.D of the 2013 NPDES Permit also states "In additional to annual effluent characteristics samples as addressed above, the permittee must also tak samples once per calendar quarter for...METALS AND CYANIDE Antimony (D); Arsenic (D); Beryllium (D); Cadmium (D); Chromium-III (D); Chromium-VI (D); Chromium (D); Copper (D); Lead (D); Manganese (D); Mercury (T & D); Molybdenum (T & D); Nickel (D); Selenium (T); Silver (D); Thallium (D); Zinc (D); and Cyanide (T). [Note: T means total recoverable or total and D means dissolved.]"
- o Part III.C.5.a (Monitoring and Records, Monitoring Procedures) of the 2013 NPDES Permit states "[m]onitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator."

Findings

- Annual dissolved uranium samples were not filtered within 15 minutes of collection of the last 24-hour composite grab sample based on discussions with the Permittee Representatives. USEPA DMR NODI Code H indicates an "Invalid Test."
 - Additional Notes: 40 CFR 136.3 Table II Footnote 7 states "For dissolved metals, filter grab samples within 15 minutes of collection and before adding preservatives. For a composite sample...filter the sample within 15 minutes after completion of collection and before adding preservatives. If it is known or suspected that dissolved sample integrity will be compromised during collection of a composite sample...over time (e.g., by interchange of a metal between dissolved and suspended forms), collect and filter grab samples to be composited...."
- O Chevron Mining-Questa Mine Standard Operating Procedures (SOP), January 5, 2016, Section 10.0, Page 14 lists "No Preservation" for radiological parameters (e.g., Alpha) and dissolved chromium VI that are not consistent with Table II (Required Containers, Preservation Techniques, and Holding Times) in 40 CFR 136.3. Required acid preservation was not documented.

Additional Notes:

40 CFR 136.3 Table II for Radiological Tests indicate that alpha, beta and radium are preserved with nitric acid (HNO3) to pH <2. The analytical laboratory Condition of Sample Upon Receipt Form dated August 15, 2017 indicates that "all aqueous samples requiring preservation preserved correctly" as "YES." However, pH was neither recorded on the provided chain of custody for samples collected on the August 14, 2017 nor recorded on the provided analytical laboratory receipt form dated August 15, 2017.

- 40 CFR Table II Metals, chromium (Cr) VI preservation is listed as pH = 9.3 to 9.7 and the related Footnote 20 Cr-VI states "To achieve the 28-day holding time, use the ammonium sulfate buffer solution specified in EPA Method 218.6. The allowance in this footnote supersedes preservation and holding time requirements in the approved hexavalent chromium methods, unless this supersession would compromise the measurement in which case requirements in the method must be followed." USEPA provides additional guidance for 40 CFR 136.3 Table II preservation requirements for NPDES approved methods in https://www.epa.gov/cwa-methods/hexavalent-chromium-questions-and-answers#hierarchy.
- Reviewed contract laboratory analytical report dated April 26, 2016 for Outfall 002 total cyanide monitoring and September 13, 2017 for the results of annual August 2017 effluent characteristic monitoring lists methods which are not listed as approved in 40 CFR 136.3. Cyanide monitoring and effluent characteristic testing monitoring should be reviewed for compliance with 40 CFR 136.3.
 - Additional Notes: Examples of analytical methods not listed as approved in 40 CFR 136.3 include the following on the reviewed contract laboratory analytical reports: PAI 724 Rev 12 by GFPC (Radiological Test); and Hazardous Waste Test Methods / Solid Waste SW-846 procedures SW8270D by GC/MS (semi-volatiles), SW8260 (volatiles), and 7196A (chromium, hexavalent). Also, NPDES approved methods for total cyanide include EPA 335.4, Rev. 1.0 (1993), not EPA 335.2 cited in the April 26, 2016 and September 13, 2017 contract laboratory analytical report.

Section G – Effluent/Receiving Water – Unsatisfactory

o Part I.A of the 2013 NPDES Permit requires monitoring and reporting for Whole Effluent Toxicity (WET) Testing, which include 24-hour composite, 7-day Static Renewal for Pimephales promelas and Ceriodaphnia dubia (C. dubia) species once a quarter for Outfall 001. WET testing results for sub-lethal reproduction C. dubia NOEC was 41%, below the critical dilution of 54%, for samples collected June 4

- thru 6, 2018 and follow up monthly re-tests to determine the length of toxicity were scheduled (GEI, Whole Effluent Toxicity Testing Report, Outfall 001, June 22, 2018).
- o Part I.A (Monitoring and Effluent Limitations) in the 2013 NPDES Permit for Outfall 002 include a TSS Daily Max concentration of 30 mg/L which was exceeded in June 2016 as previously discussed.

ATTACHMENTS

Attachment A Spring 13 and Spring 39 Interception System Components Reported Off-Line in E-mail to USEPA Summary since 2016 NPDES RI

After the 2016 Annual Routine Maintenance reported completed on September 29, 2016, one or more of the seepage interception water collection systems (WCS) and ground water withdrawal components were reported as not being operated, as follows:

Initial E-mail	Off-Line	<u>System</u>	On-Line	Summary of Cause
10/12/16	10/12/16	Spring 13 WCS	10/12/16	Pump/motor replaced
01/03/17	12/24/16	Spring 13 WCS	12/28/16	Power loss/pump/gasket
03/06/17	03/06/17	All	03/06/17	Power/main breaker
04/07/17	04/13/17	All	04/13/17	Planned electrical outage*
06/07/17	06/08/17	All	06/08/17	Planned electrical outage*
05/11/17	06/23/17	Spring 13 and 39 WCS	06/23/17	Planned electrical outage*
08/04/17	08/04/17	All	08/04/17	Power/lighting strike
08/04/17	09/07/17	All	09/07/17	Planned electrical outage*
08/09/17	08/09/17	All	08/10/17	Remove temporary WTP
08/17/17	08/16/17	Spring 13 WCS	09/20/17	Pipe obstructed/replaced

After the 2017 Annual Routine Maintenance which started August 23, 2017 and bringing Spring 13 WCS back on-line on September 20, 2017, one or more of the seepage interception and ground water withdrawal components were reported to USEPA to not be operated including communication faults when the systems were pumping, but pump rates are not automatically recorded, as follows:

Initial E-mail	Off-Line	<u>System</u>	Back On-Line	Summary of Cause
09/18/17	10/26/17	All	10/26/18	Scheduled power outage*
01/29/18	01/28/18	GWW Wells	01/28/18	Electrical interruption
02/12/18	02/11/18	GWW Wells	02/11/18	Outage cause not reported
03/02/18	02/28/18	Spring 13 WCS	03/08/18	Communication fault
03/06/18	03/04/18	All	03/05/18	Main substations failed
04/17/18	04/16/18	Spring 13 WCS	04/17/18	Level sensor
06/12/18	06/12/18	GWW1	06/14/18	Pump/motor replaced
08/23/18	08/22/18	GWW1	08/24/18	Wire pinch

Permittee representatives reported a planned outage for GWW wells and for Spring 13 and 39 WCS for a future tie-in of the Lower Sulphur Gulch Seepage Extraction/Collection System. Reported annual routine maintenance for the Spring 13 and 39 WCS is scheduled for the week of September 17, 2018.

^{*} Note: Cause related to demolition of structures, or prepare system for scheduled outage, or installation of electrical connections, or other construction activities

Attachment B USEPA Region 6 NetDMR NODI Codes obtained August 2018

	List of NODI Codes
Nodi Code	Nodi Desc
1	Wrong Flow
2	Operation Shutdown
3	Special Report Attached
4	Discharge to Lagoon/Groundwater
5	Frozen Conditions
7	No Influent
8	Other (See Comments)
9	Conditional Monitoring - Not Required This Period
A	General Permit Exemption
В	Below Detection Limit/No Detection
С	No Discharge
D	Lost Sample/Data Not Available
E	Analysis Not Conducted/No Sample
F	Insufficient Flow for Sampling
G	Sampling Equipment Failure
Н	Invalid Test
1	Land Applied
J	Recycled - Water-Closed System
K	Natural Disaster
L	DMR Received but not Entered
M	Laboratory Error
Q	Not Quantifiable
R	Administratively Resolved
S	Fire Conditions
V	Weather Related
W	Dry Lysimeter/Well
X	Parameter/Value Not Reported

NMED/SWQB Official Photograph Log Photo # 1

Photographer: Erin S. Trujillo	Date: July 24, 2018	Time: 1444 hours
City/County: Near Questa / Taos County		State: New Mexico

Location: CMI Questa Mine, Water Treatment Plant, Mine Site

Subject: Example of tank that was described by Permittee Representative to be offline waiting for repair / re-coating to prevent corrosion.



NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Sarah Holcomb Date: July 24, 2018 Time: 1452 hours

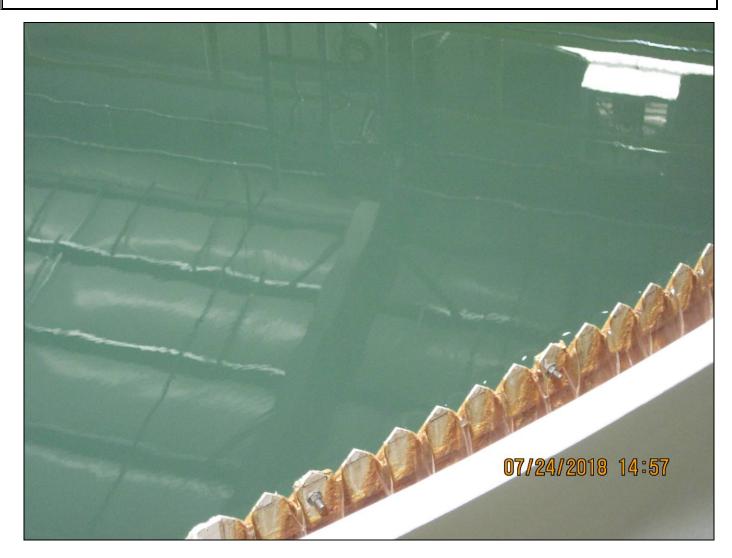
City/County: Near Questa / Taos County State: New Mexico

Location: CMI Questa Mine, Water Treatment Plant, Mine Site

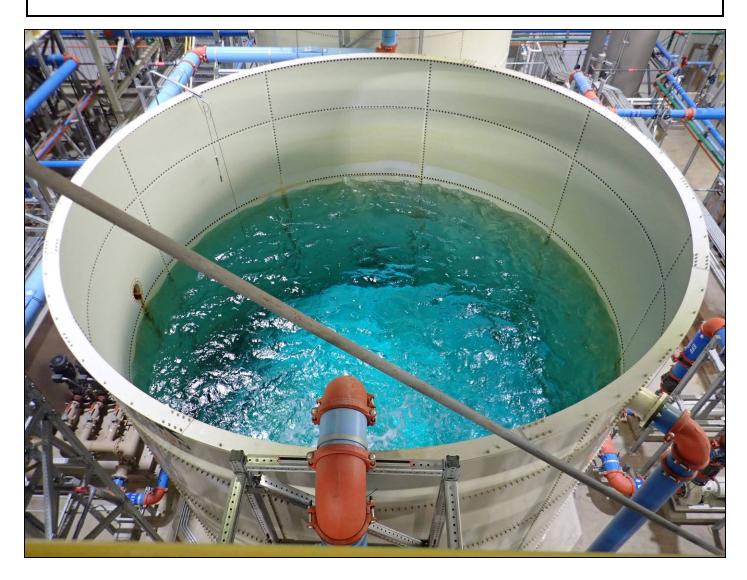
Subject: Example of buildup on circular clarifier weir. Water flow over weir was not distributed equally. WTP operators described how limited access around the clarifiers / clarifier weir affected maintenance and removal of buildup. Removal was done with water hoses and brushes. A design criterion for weirs is the weir overflow rate (e.g., gallons over each foot of weir each day). Buildup at weir teeth can cause short-circuiting, poor settling and uneven sludge blanket buildup.



NMED/SWQB Official Photograph Log Photo # 3						
Photographer: Erin S. Trujillo	Date: July 24, 2018	Time: 1457 hours				
City/County: Near Questa / Taos County State: New Mexico						
Location: CMI Questa Mine, Water Treatment Plant, Mine Site						
Subject: Another example of a circular clarifier with weir build up / precipitate.						



NMED/SWQB Official Photograph Log Photo # 4						
Photographer: Sarah Holcomb	Date: July 24, 2018	Time: 1513 hours				
City/County: Near Questa / Taos County State: New Mexico						
Location: CMI Questa Mine, Water Treatment Plant, Mine Site						
Subject: Water in effluent surge tank	prior to pH adjustment, flow to effluent stora	age tank and discharge at Outfall 001.				



NMED/SWQB Official Photograph Log Photo # 5						
Photographer: Erin S. Trujillo	Date: July 24, 2018	Time: 1521 hours				
City/County: Near Questa / Taos County State: New Mexico						
Location: CMI Questa Mine, Water Treatment Plant, Mine Site						
Subject: Staining and hairline cracks	Subject: Staining and hairline cracks were observed on the concrete floor around the ICP low pH Filter Press.					

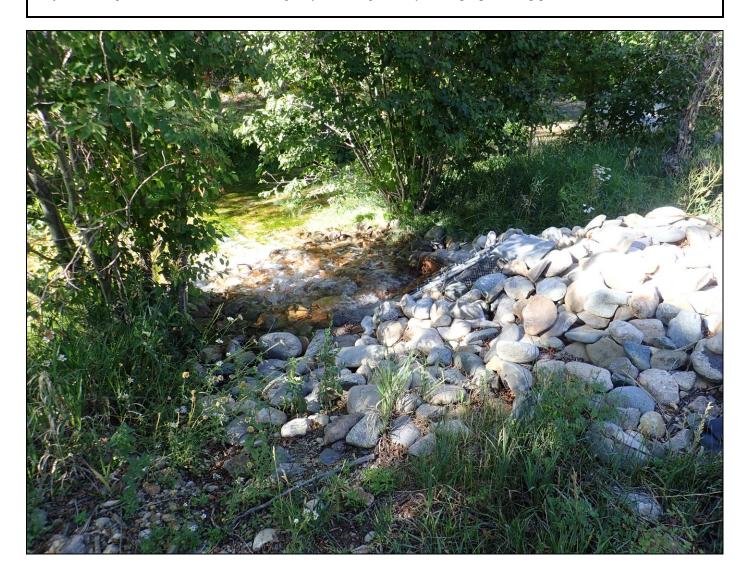


NMED/SWQB Official Photograph Log Photo # 6

Photographer: Erin S. Trujillo	Date: July 25, 2018	Time: 0847 hours
City/County: Near Questa / Taos County		State: New Mexico

Location: CMI Questa Mine, Water Treatment Plant, Mine Site

Subject: Looking south toward Red River from highway NM 38 right of way, rock rip rap, culvert pipe outlet and flow at Outfall 001.



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NMED/SWQB
Official Photograph Log
Photo #7

State: New Mexico

Photographer: Erin S. Trujillo	Date: July 25, 2018	Time: 0848 hours

Location: CMI Questa Mine, Water Treatment Plant, Mine Site

City/County: Near Questa / Taos County

Subject: Looking at Red River downstream near Outfall 001 at the confluence of shallow side channel (foreground) and Red River (background). Arrow points to Red River which appeared turbid at this location. The effluent in the side channel was clear. Algal growth was observed in the side channel.



	NMED/SWQB Official Photograph Log Photo # 8	
Photographer: Erin S. Trujillo	Date: July 25, 2018	Time: 0848 hours
City/County: Near Questa / Taos Cou	ınty	State: New Mexico
Location: CMI Questa Mine, Water	Treatment Plant, Mine Site	
,	Treatment Plant, Mine Site lownstream of Outfall 001 and side channel of	confluence.



	NMED/SWQB Official Photograph Log Photo # 9	
Photographer: Erin S. Trujillo	Date: July 25, 2018	Time: 0850 hours
City/County: Near Questa / Taos Cou	unty	State: New Mexico
Location: CMI Questa Mine, Water	Treatment Plant, Mine Site	

Subject: Algal growth in side channel at and above Outfall 001 discharge. Arrow points to Outfall 001 discharge entering side channel.



Operator or Permittee Response



October 8, 2018

Via E-mail/USPS Certified Mail

Ms. Sarah Holcomb, Program Manager Point Source Regulation Section Surface Water Quality Bureau Resource Protection Division New Mexico Environment Department P.O. Box 5469 Santa Fe, NM 87502-5469

Re: Chevron Mining Inc. – Questa Mine – NPDES NM0022306 Response to Compliance Evaluation Inspection Report

Dated September 6, 2018

Dear Ms. Holcomb:

This letter is to confirm Chevron Mining Inc. (CMI) received an electronic copy of the September 6, 2018, the Compliance Evaluation Inspection Report and includes CMI's response to the items noted, including where appropriate, compliance schedules for CMI's actions to address those items. The structure of this submittal is to respond to the "Further Explanations" section of the inspection and supply additional information, and hereby provides responses to the items identified in the report. As we have discussed with New Mexico Environment Department (NMED) on several occasions, CMI is interested in maintaining an open, transparent and collaborative relationship with NMED, U.S. Environmental Protection Agency (USEPA) and other state agencies such as New Mexico Mining and Minerals Division (MMD) and Office of State Engineer (OSE). As was observed and discussed during the inspection, the Questa Mine Site (Site) is undergoing numerous changes as the result of state led closure activities and remediation activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) under the oversight of USEPA Region 6. In an effort to maintain an open relationship CMI has met with various agencies frequently to provide updates on the changes that have occurred at the site.

Section A - Permit Verification (See Section C O&M for BMPs and Section E Flow Measurement for Outfalls 004 and 005) - All Marginal

Duty of Reapply Permit Requirements and Findings

Part III.A.4 (General Conditions, Duty to Reapply) of the 2013 NPDES Permit states "If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit."

Permittee submitted renewal application to USEPA Region 6 2013 Permit Writer dated April 30, 2018 (six months, but greater than 180 days before the permit expires on October 31, 2018). USEPA issued an administratively complete letter dated May 25, 2018.

Questa Mine
P.O. Box 469, Questa, NM 87556
Tel 575 586 7507
michaelcoats@chevron.com

Response:

The permit application was submitted within the appropriate timeframe and as mentioned in the comment was deemed administratively complete on May 25, 2018. On September 18, 2018 a phone call was held between EPA, NMED and CMI to discuss any clarifications or requests for additional information related to the permit. Based on the discussion EPA will issue a formal request for additional information to support the permit application. However, from the discussion there is minimal additional information required and some items are reports previously submitted under CERCLA.

Spring 13 and Spring 39 Interception System and Ground Water Well System Permit Requirements and Repeat/Continued Findings

NMED Comment - Continued or Repeat Findings

Updates, specification and/or clarification of requirements for the BMP conditions appear needed in the NPDES Permit.

Permit Requirements: Part II.D. Best Management Practices of the 2013 NPDES Permit for the spring interception systems and groundwater wells states "This permit prohibits the discharge to the Red River of pollutants traceable to point source mine operations except in trace amounts" and "[i]mplementation of these Best Management Practices...is considered compliance with this prohibition." Part II.D of the NPDES Permit states "The permittee shall also properly operate the ground water withdrawal well below the toe of the Sugar Shack South deposit at a location approximately 100 yards southwest of the old mill site." Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the 2013 NPDES Permit states "The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit... This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit."

Non-compliance report and recordkeeping requirements in the 2013 NPDES Permit include Part III.D.11 (signatory requirements), Part III.D.7.b and c (steps and waiving each written report), and Part III.B.4 (specific conditions and allowances).

Findings/Additional Information: Permit Verification, Reports & Record Keeping and Operations & Maintenance findings for the decreased pumping rates of the interception systems and visible white aluminum hydroxide precipitates at Spring 13 and Spring 39 were discussed in the 2015 NPDES CEI and 2016 NPDES RI reports. Not all current or planned groundwater wells are described in the 2013 NPDES Permit. Related to effectiveness, CMI's 2018 NPDES Renewal Application April 30, 2018, GEI, Technical Memorandum, Supplemental Information, Section 3.1 Mine Site states "The Spring 13 and Spring 39 systems were found to remove little mass of constituents and have had a near negligible impact on the river water quality due to reduced concentrations at the Spring 39 system and low collection rates from iron precipitate fouling at the Spring 13 system." Temporary shut downs or outages of all or portions of the seepage interception and groundwater withdrawal well systems continue due to maintenance, construction, and electrical problems. A summary of reported planned and unplanned outages submitted by Permittee Representatives by e-mail since the 2016 NPDES RI report is attached.

Ms. Sarah Holcomb Page 3 October 8, 2018

Reviewed e-mail notifications for outages / possible non-compliance did not include steps being taken to reduce, eliminate, and prevent recurrence (see Part III.D.7.b of the 2013 NPDES Permit).

Response:

As previously stated in the 2015 CEI compliance response letter, and as documented in the USEPA's 2010 Record of Decision (ROD) for the Questa Mine Site and other evaluations (USFS, USGS study from 2010), the exact source for the AI, Fe and other metals observed in this area is undefined and have been linked to several potential sources, such as natural mineralization and historic fill material. To assist in managing potential impacts resulting from Spring 13 and 39, seepage interception systems were installed in 2002 and upgraded in 2005 as a best management practice in accordance with Section D of the permit. CMI continues to operate the Spring 13 and 39 water collection systems and as noted in the comment and documented in the ROD, the systems have reduced loading to the river from these potential sources.

Little mass is removed from the Spring 39 system because alluvial groundwater, the source of the water at Spring 39, has low constituent concentrations due to pumping of the BMP Groundwater Withdrawal Wells (GWW-1, -2, -3) along the roadside rock piles. The Spring 13 system removes little mass due to low collection rates and iron-fouling of the drain line. Concentrations at the Spring 13 system have not improved since it was installed in 2002; however, the upgradient alluvial groundwater has improved. This suggests that the source of the elevated concentrations is proximal to Spring 13 and likely the natural mineralization from the hydrothermal scar that is immediately north of Spring 13.

Regarding the "planned and unplanned outages" from January 1, 2016 through June 12, 2018. The notices for outages have been diligently submitted to USEPA and NMED via email and fall under the following categories with the respective total hours:

	Outage	Total Hours
•	System Maintenance	900.5
•	Water Treatment Plant (WTP) Construction	650
•	Pump Failure	326
•	Kit Carson Electrical Services power interruption	40.5
•	Electrical power interruption	24
•	Mine Site Facilities Demolition	23
•	Weather	22

Based upon CMI records, during this operation period, the BMPs operated 89% of the time, with only 11% downtime, which were related to the above-mentioned causes.

The longest outage was 724 hours (8/21/17 to 9/20/17) and was related to maintenance and making major improvements to Spring 13 WCS to prevent the reoccurrence of the problem. Specifically, the line feed pump was removed, and a new pump was installed; a feedline obstruction removed; a new line inlet configuration was installed; collection and feed lines were flushed, consistent with the maintenance SOP for this engineering control. In addition, before this work could commence CMI sought approval from the United States Forest Service (USFS) under a Special Use Permit.

Ms. Sarah Holcomb Page 4 October 8, 2018

The NMED CEI report stated "possible non-compliance did not include steps being taken to reduce, eliminate, and prevent recurrence".

Notices that are sent to USEPA and NMED typically reference the use of isolation valves for both Spring 13 and 39 WCS. These valves prevent backflow and subsequent discharge from the WCS collected waters.

Additionally, should the outage last longer than expected both agencies have been provided with updates as well as documenting the improvements made

to the systems. An example of those updates can be found in Attachment 1, which were related to the August 2017 Annual Maintenance and Spring 13 WCS improvements outage. During that time the following correspondences were sent to USEPA and NMED:

Date: Author: Notice Type:

8/17/18	Armando Martine	z Initial notice.
0/1//10	Alliand Martine	Z IIIIIIai Houce.

8/23/18 Jeff Schoenbacher Update on maintenance.

9/5/17 Jeff Schoenbacher Update on maintenance/USFS permit.

9/18/17 Jeff Schoenbacher Update found blockage, Spring 13 online.
9/20/17 Jeff Schoenbacher Update both Spring 13 and 39 operating.

Outfall 004 and Outfall 005 Location and Flow Measurement Accuracy

NMED Comment:

Additional clarification or information (e.g., discharge tables or model calculations) may be needed to confirm that the flow measurements for Outfall 004 and Outfall 005 meet accuracy requirements of the NPDES Permit. Additional clarification appears needed to describe discharge locations in the NPDES Permit.

Permit Requirements: Location of the measurement locations for Outfall 004 and Outfall 005 is provided in the 2013 NPDES Permit. Flow Type in Part I.A for Outfalls 004 and 005 states "Measure by Weir." Part III.D.6 (flow measurements) of the 2013 NPDES Permit states:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings/Additional Information: CMI's 2018 NPDES Renewal Application Form 2C does not provide estimate average flow for Outfall 004 or Outfall 005. Outfall 004 has a weir installed in a shallow channel (2014 NPDES CEI report). The 2018 NPDES Renewal Application describes changes to the Outfall 005 catchment basin and flow measurement which are under construction. The Enhanced Outfall 005 Catchment is a concrete-lined stormwater storage facility that also has a connection by a spillway to the WTP upset cell. Collected water that exceeds the storage capacity of the catchment (100-year 24- hour event) water would discharge

Ms. Sarah Holcomb Page 5 October 8, 2018

over the spillway to Outfall 005. The application describes that the spillway is 400 ft long, protected with D50 riprap, three (3) feet below the catchment crest. The spillway was designed to function as a broad-crested weir. There is no channel described for the weir. The renewal application states that "A staff gage will be installed as part of the Enhanced 005 Catchment that can be used to measure the depth of water flowing over the spillway and thereby estimate the discharge from the spillway." The 2018 Renewal Application describes that the discharge from the spillway would enter the Red River at the previous Outfall 005 location. Figure 1 of the 2018 NPDES Renewal Application does not show where a 400-foot wide discharge would cross under highway NM 38 and enter Red River.

Response:

No discharges have occurred through Outfall 004 and 005, consequently, CMI's 2018 renewal application form 2C does not have average flow measurements and storm flows are impossible to accurately estimate.

Outfall 004 is equipped with a Parshall flume a few feet upstream of the weir. The flume has a 12-inch wide throat and is capable of flow measurements up to 16 cubic feet per second. The flume is equipped with a stilling well and pressure transducer. The pressure transducer records the depth of water flowing through the flume, which is then used with the depth-flow rating specifications of the flume to calculate the flow. To date, no flow has occurred at Outfall 004.

As stated in the comment, the renewal application describes changes to the Outfall 005 catchment basin and flow measurement which are under construction. During a telephone call with USEPA (Brent Larsen and Laura Stankosky) on March 26, 2018 CMI discussed the upgrades to the 005 catchment and subsequent changes to the 005 weir and stormwater flume under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Prior to the call CMI provided drawings and options for measuring flow from the catchment. The outcome of the discussion was that the spillway on the new Enhanced 005 Catchment was a "broad crested weir" and the use of the staff gauge with the spillway rating table allowed for accurate measurements of any discharge over the weir. EPA stated the alternate design that was discussed which included the use of a standpipe and smaller weir similar to what is in use now would not provide an accurate measurement of flow since only a small volume of discharge would be routed through the standpipe and weir. Per the permit, the full discharge must be reported on a daily basis. The use of the broad crested weir and staff gauge allowed for safe and accurate estimate of flow. A sample location was also agreed to during the call. It was determined that the Enhanced 005 catchment would not trigger an amendment to the 2013 permit if the catchment became operational prior to the new NPDES permit being issued. The design and agreed method for measuring flow and collecting samples was again presented to EPA during an April 4, 2018 meeting to review key components of the permit application. As is stated in the comments, the Enhanced 005 catchment is designed to hold stormwater from the surrounding watershed for a 100-yr, 24-hr event. Excess water that exceeds the storage capacity of the catchment would discharge over the 400-foot long spillway as a sheet flow over the spillway. Should this occur the existing ditch and culvert under the highway would likely become inundated and water would flow over the highway and blend with Red River water that would also likely be out of bank given the assumed 100-yr, 24-hr event storm condition.

Outfall 002/003 Seepage Interception System Upgrade

Part I of the 2013 NPDES Permit includes both loading and concentration effluent limitations and monitoring. Part III.D.I.a (Reporting Requirements, Planned Changes, Industrial Permits) of the 2013 NPDES Permit states "The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility...."

Loading information is discussed for the upgrades to the Outfall 002/003 seepage interception system in the 2018 Renewal Application (Appendix D, Water Management Update and Evaluation of Best Management Practices, Arcadis U.S., Inc., April 20, 2018). However, more information on the specific quantities and concentrations (nature or quantity of pollutants), which were used to estimate loading may be needed for Outfall 002.

Response:

Section 3.4 of Appendix D of the renewal application discusses planned upgrades to the existing seepage interception system at the tailing facility, which are being performed as CERCLA Remedial Actions, as required by the Partial Consent Decree. The upgrades include additional extraction wells, refurbishment of a seepage barrier, termination of the pumpback system, and construction of a new extraction well system at the southwest portion of the tailing facility. A Design Report for the upgrades was prepared that contains a loading analysis to estimate the effect these new upgrades will have on concentrations and loading at Outfall 002 (Arcadis 2017). The analysis estimated collection/pumping rates for the new upgrades and concentrations based on results of pre-design investigations, and values used in the loading analysis are contained in Table 2 of the Design Report. It should be noted that the table is based on concentrations and flow rates from a pre-design investigation that was conducted prior to the design work. While these measured flows and concentrations formed the basis for the loading analysis, actual concentrations may be higher or lower than predicted and will not be known until after the upgrades to the Seepage Intercept System have been completed and the System is in operation. Construction of the upgrades is scheduled to begin in fall 2018, and as upgrades become operational, pumping and water quality data will be collected to update the loading analysis. A copy of the design report is available upon request.

Arcadis. 2017. Tailing Facility Seepage Barrier Upgrade Pre-Final Design Report, Early Design Actions, Chevron Mining Inc., Questa Mine Superfund Site, Questa, New Mexico, Prepared for Chevron, Environmental Management Company, Revision 0, January 16.

Section B - Record Keeping and Reporting - Marginal

Permit Requirements

Part III.C.4 (Monitoring and Records, Record Contents) of the 2013 NPDES Permit states

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

Ms. Sarah Holcomb Page 7 October 8, 2018

Findings

Reviewed contract laboratory analysis reports did not record the time of analyses or the name of the person(s) performing analyses.

Reviewed analytical results were not consistent with data reported on Discharge Monitoring Results (DMRs).

Part I.A (Effluent Limitations and Monitoring Requirements, Outfall 002) in the 2013 NPDES Permit include a TSS Daily Max concentration of 30 mg/L. For monitoring results on the June 2016 DMR, the TSS Daily Max was reported as less than (<), but the result was described as a detected concentration (63 mg/L) in non-compliance reporting. No averaging or calculations are used when reporting valid daily max concentrations.

Part I.A and Part II in the 2013 NPDES Permit require monitoring and reporting of whole effluent toxicity (WET) testing. Conditional retests were not accurately reported on DMRs for Outfall 001 and Outfall 002 based on information from the Permittee Representatives. All conditional retest reporting (#1, #2 and #3) for monitoring location TX1Q and TX2Q should be reviewed and corrected, as needed.

Additional Information: For WET testing retests, a "1" is entered if the No Observed Effects Concentration (NOEC) for survival and/or sub-lethal effects is less than the critical dilution; otherwise "0" is entered on the DMR. Reporting "1" or "0" indicates a retest was conducted. After discharges started in July 2017 thru June 2018, monthly Outfall 001 WET quarterly retests were reported as "0" indicating that a WET retest was conducted. Permittee Representatives described that no retests were required or conducted thru June 2018. Outfall 002 WET quarterly retests (TX2Q) were shown as "Not Received" on USEPA's summary reports. Permittee representatives may contact USEPA NetDMR contacts if there are questions on "no discharge" or in this case no data reporting or receipt of DMRs submitted electronically. A list of No Discharge/No Data (NODI) codes obtained August 2018 from USEPA R6 NetDMR contacts is attached. For example, NODI Code 9 indicates Conditional Monitoring-Not required this period.

Response:

ALS Environmental Laboratory analysis reports record the date of the analyses and name of the person performing analyses, see below, and the actual time the analyses were performed can be provided upon request. Going forward, the raw data sheets will be included in the ALS reports that document the actual time that the analyses is performed on the sample. The ALS Chain of Custody forms requesting the raw data have been revised and updated accordingly.

Field ID:	Outfall-002-TO1N
Lab ID:	1808226-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 09-Aug-18

Date Extracted: 23-Aug-18
Date Analyzed: 23-Aug-18

Prep Method: NONE

Prep Batch: FL180823-1 QCBatchID: FL180823-1-1

Run ID: FL180823-1A1
Cleanup: NONE
Basis: As Received

Basis: As Received File Name: Manual Entry Analyst: Andrew E. Jones

Sample Aliquot: 20 ML Final Volume: 20 ML Result Units: MG/L Clean DF: 1 Ms. Sarah Holcomb Page 8 October 8, 2018

The monitoring result on the June 2016 DMR for TSS Daily Max was originally reported to Ms. Gladys Good Jackson (USEPA) and Ms. Barbara Cooney (NMED) on July 5, 2016 (Attachment 2), informing both agencies of the 63 mg/L result.

Recognizing that TSS was historically non-detectable for Outfall 002, ALS Environmental Laboratory was directed to re-run the sample for TSS. In addition, another sample was taken from the June 8, 2016 sample matrix that was refrigerated and maintained by the sampling technicians. For further confirmation, Outfall 002 was also resampled for this parameter and sent to ALS Environmental Laboratory on July 5, 2016. The results for the TSS resampling were received 7/15/16 and the DMR was resubmitted factoring in the two non-detects (< 4 mg/L). The DMR in question was revised and resubmitted on July 18, 2016 after consulting with Ms. Jackson and the comment section of the DMR explains the TSS result and the resampling for this parameter. The revised DMR that was resubmitted on July 18, 2016 reflects the 63 mg/L maximum result (attributed to laboratory error) and does not reflect an average for the three samples. In addition, per Ms. Jackson this was the guidance received for reporting this result and the laboratory result and email correspondence were attached to the DMR and a "passed" receipt was received.

The CDX DMR module does not allow null values for the conditional retest fields. As a result, "0" was entered in these fields to submit the DMR and was intended to reflect no retests were conducted. In the future, NODI #9 "Conditional Monitoring — Not Required" will be used for Codes 22415, 22416, 51443. Additionally, the TX1 and TX2 DMRs have been revised and will be resubmitted in October of this year.

Additional Comments

Comments added to the June 2018 WET testing DMR provide additional information on the effect threshold concentration (IC25) of 68% effluent. IC25 value is a statistical calculation of the effluent concentration which causes a 25% reduction in growth or reproduction of test organisms. IC25 results are not required to be reported by USEPA Region 6 in the State of New Mexico. Comments added to the Outfall 001 June 2018 WET testing DMR also include questions requesting clarifications on permit language for

Toxic Reduction Evaluations (TREs). The Permittee would need to submit a written request or contact the USEPA Permit Writer directly to receive clarification and confirmation on percent effluent requirements for sub-lethal TRE.

Response:

Whole effluent toxicity (WET) testing is not as straightforward as other basic chemical analyses due to the inherent variability from conducting tests with living organisms. Compliance in EPA Region 6 is based on one of the two statistical measures available for data interpretation in the chronic EPA methods (EPA 2002), the lowest-, and no-observed-effects concentrations (LOEC and NOEC). However, the IC₂₅ is also available for data interpretation. In fact, this is the preferred method for data interpretation in the Toxicity Identification Evaluation manual (EPA 1992).

While it is correct that IC_{25} data are not required to be reported on the DMR, CMI would like to ensure the additional data are recorded and believe they should be considered when evaluating compliance for all tests, including the WET monthly retests due to the implications of potential monthly retest failure.

The permit is unclear whether a sublethal TRE is required after two or three monthly retest failures in addition to the trigger for a sublethal TRE. A written request for clarification of TRE has been made to the permit writer. This issue was discussed during the September 18, 2018 conference call between EPA, NMED and CMI. EPA agreed the permit is unclear. Based on current guidance, failure of two out of three retests would trigger a TRE, but EPA is going to confirm for CMI whether that is accurate.

Section D - Self Monitoring and Section F Laboratory - Both Unsatisfactory

Permit Requirements:

Part I.A (Monitoring Requirements, Outfall 002) in the 2013 NPDES Permit require annual 24-hour composite monitoring and reporting for dissolved uranium and quarterly 24-hour composite monitoring and reporting for total cyanide.

Part I.D (Effluent Characteristic Analysis for New Discharges, Outfall 001) of the 2013 NPDES Permit states "beginning the start-up of the new water treatment and lasting through the expiration date of the permit, the permittee shall collect samples at Outfall 001 once per calendar year, during the period of mill operations, for analysis of effluent characteristics as listed below. Samples shall be taken at least six months apart or longer. The first sample shall be taken within the 30 days of first commencing discharge after the final compliance schedule." Parameter categories include Radioactivity, Nutrients, and Chlorine; Volatile Compounds; Acid Compounds; Base/Neutral Compounds; and Pesticides and PCBs. Part I.D of the 2013 NPDES Permit also states "In additional to annual effluent characteristics samples as addressed above, the permittee must also take samples once per calendar quarter for...METALS AND CYANIDE Antimony (D); Arsenic (D); Beryllium (D); Cadmium (D); Chromium-III (D); Chromium-VI (D); Chromium (D); Copper (D); Lead (D); Manganese (D); Mercury (T & D); Molybdenum (T & D); Nickel (D); Selenium (T); Silver (D); Thallium (D); Zinc (D); and Cyanide (T). [Note: T means total recoverable or total and D means dissolved.]"

Part III.C.5.a (Monitoring and Records, Monitoring Procedures) of the 2013 NPDES Permit states "[m]onitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator."

Findings

Annual dissolved uranium samples were not filtered within 15 minutes of collection of the last 24-hour composite grab sample based on discussions with the Permittee Representatives. USEPA DMR NODI Code H indicates an "Invalid Test."

Additional Notes: 40 CFR 136.3 Table II Footnote 7 states "For dissolved metals, filter grab samples within 15 minutes of collection and before adding preservatives. For a composite sample...filter the sample within 15 minutes after completion of collection and before adding preservatives. If it is known or suspected that dissolved sample integrity will be compromised during collection of a composite sample...over time (e.g., by interchange of a metal between dissolved and suspended forms), collect and filter grab samples to be composited...."

Chevron Mining-Questa Mine Standard Operating Procedures (SOP), January 5, 2016, Section 10.0, Page 14 lists "No Preservation" for radiological parameters (e.g., Alpha) and dissolved

Ms. Sarah Holcomb Page 10 October 8, 2018

chromium VI that are not consistent with Table II (Required Containers, Preservation Techniques, and Holding Times) in 40 CFR 136.3. Required acid preservation was not documented.

Additional Notes:

40 CFR 136.3 Table II for Radiological Tests indicate that alpha, beta and radium are preserved with nitric acid (HNO3) to pH <2. The analytical laboratory Condition of Sample Upon Receipt Form dated August 15, 2017 indicates that "all aqueous samples requiring preservation preserved correctly" as "YES." However, pH was neither recorded on the provided chain of custody for samples collected on the August 14, 2017 nor recorded on the provided analytical laboratory receipt form dated August 15, 2017.

40 CFR Table II Metals, chromium (Cr) VI preservation is listed as pH = 9.3 to 9.7 and the related Footnote 20 Cr-VI states "To achieve the 28-day holding time, use the ammonium sulfate buffer solution specified in EPA

Method 218.6. The allowance in this footnote supersedes preservation and holding time requirements in the approved hexavalent chromium methods, unless this supersession would compromise the measurement in which case requirements in the method must be followed." USEPA provides additional guidance for 40 CFR 136.3 Table II preservation requirements for NPDES approved methods in https://www.epa.gov/cwa-methods/hexavalent-chromium-questions-and-answers#hierarchy.

Reviewed contract laboratory analytical report dated April 26, 2016 for Outfall 002 total cyanide monitoring and September 13, 2017 for the results of annual August 2017 effluent characteristic monitoring lists methods which are not listed as approved in 40 CFR 136.3. Cyanide monitoring and effluent characteristic testing monitoring should be reviewed for compliance with 40 CFR 136.3.

Additional Notes: Examples of analytical methods not listed as approved in 40 CFR 136.3 include the following on the reviewed contract laboratory analytical reports: PAI 724 Rev 12 by GFPC (Radiological Test); and Hazardous Waste Test Methods / Solid Waste SW-846 procedures SW8270D by GC/MS (semi-volatiles), SW8260 (volatiles), and 7196A (chromium, hexavalent). Also, NPDES approved methods for total cyanide include EPA 335.4, Rev. 1.0 (1993), not EPA 335.2 cited in the April 26, 2016 and September 13, 2017 contract laboratory analytical report.

Response:

Outfall 001 annual characterization conducted in accordance with D. Effluent Characteristic Analysis for New Discharges (Outfall 001) is a discrete sample. Since the inception of sampling for this outfall the dissolved uranium, as well as other parameters requiring filtration, were filtered within 15 minutes. The filtration is conducted at the time of the sampling event at Outfall 001.

Regarding Outfall 002, the annual dissolved uranium sample is taken at the same time as the monthly 24-hour compliance sample. This requires three separate cuts, which is then combined and represents the composite sample for that month. The dissolved uranium was filtered and drawn off the refrigerated composite sample, thereby exceeding the 15-minute filtration limit. In

Ms. Sarah Holcomb Page 11 October 8, 2018

the future, sampling staff will filter from the three separate cuts, for the dissolved uranium sample, which is a "Report" requirement for the permit.

Chevron Mining-Questa Mine Standard Operating Procedures (SOP), January 5, 2016, Section 10.0, Page 14 listed "No Preservation" when the bottle inventory was being compiled for the annual characterization sample. The entry was a typo and has since been revised in the NPDES SOP that was updated September 24, 2018.

Attachment 3 represents the ALS "Sample Condition Form (Liquid)" for CMI Work Order 1708266, documenting the sample condition as being received with a pH <2 for the radionuclides. The sample condition form that records the pH is completed for every batch of samples received by ALS Environmental Laboratory. In the event this information is required it is available upon request.

The discrete grab pH sample for Outfall 001 annual characterization sample was also recorded on the provided chain of custody, which was part of the ALS report provided to NMED for the samples collected on August 14, 2017.

Project Name/No.	Outfall-001 Sta	rtup mon	torin	g of N	PDES					
REPORT TO:	Jeff Schoenbacher									
PHONE:	575-586-753	75-586-7537								
FAX:										
E-MAJL:	ischoenbache	er@chev	ron.	com						
	Chevron Mini									
ADDRESS:	PO Box 469,	Questa.	NM	8755	3					
	information as n									
Sample ID	Date	Time *	Lab ID	Watrix	¥	No. of Containers				
Outla!! 001-TØ1N-081417	8/14/17	10:47		SFW	7.25	14				
Odfall 001-DØ1N-081417	B/14/17	10:47		SFW	7.25	4				

ALS Environmental Laboratory method for chromium (Cr) VI is SW7196, which requires unpreserved samples and has 24-hr hold time. Per ALS it seems that the finding is referring to Method 218.6, which is Hexavalent Chromium (as CrO_4^{2-}), chromate which is a different method, not related to SW7196 Cr VI.

ALS Environmental Laboratory reviewed the statement on Cyanide and the only method they have available is Method 335.2 and the chemistry is the same between both methods. Method 335.4 is the automated distillation and is not available at ALS; 335.2 is the manual distillation.

Ms. Sarah Holcomb Page 12 October 8, 2018

For Method SW 8260 voc, ALS will use the equivalent Method EPA 624 for this analysis. Regarding the semi-voc parameters, the equivalent Method EPA 625 will be the chosen method.

The radionuclides testing for the annual sample is correct; for example, "gross alpha/beta 724" is the ALS SOP number, which is the direct reference to Method EPA 900.

Section G - Effluent/Receiving Water - Unsatisfactory

Part .A of the 2013 NPDES Permit requires monitoring and reporting for Whole Effluent Toxicity (WET) Testing, which include 24-hour composite, 7-day Static Renewal for *Pimephales promelas* and *Ceriodaphnia dubia* (*C. dubia*) species once a quarter for Outfall 001. WET testing results for sub-lethal reproduction *C. dubia* NOEC was 41%, below the critical dilution of 54%, for samples collected June 4 thru 6, 2018 and follow up monthly re-tests to determine the length of toxicity were scheduled (GEI, Whole Effluent Toxicity Testing Report, Outfall 001, June 22, 2018).

Part I.A (Monitoring and Effluent Limitations) in the 2013 NPDES Permit for Outfall 002 include a TSS Daily Max concentration of 30 mg/L which was exceeded in June 2016 as previously discussed.

Response:

The finding of "unsatisfactory" in relation to the *C. dubia* WET test-initiated June 5 is not warranted. The permit requires follow-up testing to be performed to determine the duration of a toxic event, followed by additional testing if the toxicity is persistent. Provided all of the monthly retests are conducted in the appropriate timeframe, as is the case here, the permit conditions have been met. While the reproduction sublethal endpoint failure was not expected, additional testing has been performed according to the permit requirements, indicating a satisfactory response to the sublethal effects.

See Section B for 2016 TSS response.

Thank you for your consideration in this matter and should you have any questions or require additional information regarding this report, please contact Cindy Gulde at (575) 586-7606.

Sincerely,

Michael D. Coats

CC:

Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail Nancy Williams, USEPA (6EN-WC) by e-mail David Long, USEPA (6EN-WM) by e-mail Robert Houston, USEPA (6EN-WS) by e-mail David Esparza, USEPA (6EN-WM) by e-mail Amy Andrews, USEPA (6EN-WM) by e-mail Tony Loston, USEPA (6EN-WM) by e-mail

Ms. Sarah Holcomb Page 13 October 8, 2018

Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail Gary Baumgarten, USEPA (6SF-RA) by e-mail Robert Italiano, NMED District II by e-mail Anne Mauer, Chevron-Questa Mine Permit Lead, NMED GWQB by e-mail Joseph C. Fox, NMED GWQB by e-mail Cindy Gulde, Chevron EMC by e-mail Armando Martinez, Chevron EMC by e-mail Jeff Schoenbacher, Chevron EMC by e-mail

From: Martinez, Armando

Sent: Thursday, August 17, 2017 7:37 AM

To: Gooden-Jackson.Gladys@epa.gov; Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)

Cc: Schoenbacher, Jeffery; Leach, Steven (Steve.Leach); Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us);

Chavez, Tommy M; sarah.holcomb@state.nm.us; Coats, Michael (MichaelCoats)

Subject: Spring 13 Outage

Good Morning Gladys -

I would like to provide you with a notice that Spring 13 is experiencing pumping issues and as a result Spring 13 was shut down yesterday in order to troubleshoot the issue. During this time the annual maintenance of the Spring 13 line will also be performed starting on Monday, August 21, 2017. This will include cleaning the pump-back line and auxiliary components. It is anticipated that Spring 13 will be back in operation on Wednesday, August 23, 2017.

Consistent with previous years, these maintenance activities are conducted in order to keep the Spring 13 pump backflow optimal. Should the maintenance extend beyond August 23, 2017 I will notify you.

Should you have any questions or require additional information please contact me at (575) 586-7639.

Sincerely,

Armando Martinez

Armando Martinez

Environmental Manager

Mining and Specialty Portfolios Business Unit

Chevron Environmental Management Company P.O. Box 469
Questa, NM 87556
Tel 575 586 7639
amarti@chevron.com

From: Schoenbacher, Jeffery

Sent: Wednesday, August 23, 2017 1:49 PM

To: Martinez, Armando; Gooden-Jackson.Gladys@epa.gov; Maurer, Anne, NMENV

(Anne.Maurer@state.nm.us)

Cc: Leach, Steven (Steve.Leach); Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us); Chavez, Tommy M;

sarah.holcomb@state.nm.us; Coats, Michael (MichaelCoats); Robinson, Frank; Hernandez, Maryalda;

Arellano, Alex (CVQJ@chevron.com); Morgas, Cassandra; 'Duran, Tito'

Subject: RE: Spring 13 Outage

Hello Gladys and Anne:

The purpose of this correspondence is to provide you with a progress update on the WCS maintenance activities.

On August 23, 2017, crews commenced maintenance work at Spring 13 WCS vault and all isolation valves were activated for both Spring 13 and 39 WCS. Currently, the focus remains on Spring 13 WCS and once completed, crews will move to the Spring 39 WCS. Typically, this annual maintenance work requires a five to six day commitment, dependent on the progress of the cleaning. Once completed, CMI will provide you with a follow-up notice that summarizes the tasks and the status of the systems.

Until then, thank you and should you have any questions, please feel free to contact me at 575 586 7537.

Regards,

Jeff Schoenbacher

From: Martinez, Armando

Sent: Thursday, August 17, 2017 7:37 AM

To: Gooden-Jackson.Gladys@epa.gov; Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)

<Anne.Maurer@state.nm.us>

Cc: Schoenbacher, Jeffery <JSchoenbacher@chevron.com>; Leach, Steven (Steve.Leach) <Steve.Leach@chevron.com>; Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us) <erin.trujillo@state.nm.us>; Chavez, Tommy M

<tchavez@chevron.com>; sarah.holcomb@state.nm.us; Coats, Michael (MichaelCoats) < MichaelCoats@chevron.com>

Subject: Spring 13 Outage

Good Morning Gladys -

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Consistent with previous years, these maintenance activities are conducted in order to keep the Spring 13 pump backflow optimal. Should the maintenance extend beyond August 23, 2017 I will notify you.

Should you have any questions or require additional information please contact me at (575) 586-7639.

Sincerely,

Armando Martinez

Armando Martinez

Environmental Manager

Mining and Specialty Portfolios Business Unit

Chevron Environmental Management Company P.O. Box 469
Questa, NM 87556
Tel 575 586 7639
amarti@chevron.com

From: Schoenbacher, Jeffery

Sent: Tuesday, September 05, 2017 9:42 AM

To: williams.nancy@epa.gov; 'Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)'

Cc: Leach, Steven (Steve.Leach); 'Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us)'; Chavez, Tommy M;

'sarah.holcomb@state.nm.us'; Coats, Michael (MichaelCoats); 'Robinson, Frank'; Hernandez,

Maryalda; Arellano, Alex; Morgas, Cassandra; 'Duran, Tito'

Subject: RE: Spring 13 Outage

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As of the end of last week, the focus remains on Spring 13 WCS and it has been determined that a portion of the WCS line needs to be excavated. Since CMI occupies the area under a United States Forest Service (USFS) conditional use permit, CMI has asked permission to conduct this activity and is awaiting a response to move forward. Once CMI has been granted permission to proceed, the maintenance activities for both Spring 13 and 39 will continue.

Nancy, below you will find the original email thread for this project, which will give you a time line reference for this project.

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Cc: Schoenbacher, Jeffery < JSchoenbacher@chevron.com >; Leach, Steven (Steve.Leach) < Steve.Leach@chevron.com >; Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us) < erin.trujillo@state.nm.us >; Chavez, Tommy M < tchavez@chevron.com >; sarah.holcomb@state.nm.us; Coats, Michael (MichaelCoats) < MichaelCoats@chevron.com > Subject: Spring 13 Outage

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Armando Martinez

Armando Martinez

Environmental Manager

Mining and Specialty Portfolios Business Unit

Chevron Environmental Management Company P.O. Box 469
Questa, NM 87556
Tel 575 586 7639
amarti@chevron.com

From: Schoenbacher, Jeffery

Sent: Monday, September 18, 2017 11:08 AM

To: 'williams.nancy@epa.gov'; 'Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)'

Cc: Leach, Steven (Steve.Leach); 'Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us)'; Chavez, Tommy M;

'sarah.holcomb@state.nm.us'; Coats, Michael (MichaelCoats); 'Robinson, Frank'; Hernandez,

Maryalda; Arellano, Alex; Morgas, Cassandra; 'Duran, Tito'; 'Narciso Holquin'

Subject: RE: Spring 13 Outage

Good Morning Anne and Nancy;

CMI completed the excavation of the French drain clean-out for Spring 13 WCS last Friday.

Upon examination of the pipe, it was discovered to be partially obstructed and approximately 40' of line was replaced. This work was conducted over the weekend and it is anticipated that a new pump will be installed in the vault on Tuesday, September 19, 2017. Once Spring 13 WCS is done, the maintenance activities will transition to Spring 39 WCS and I will provide you with a summary after completion.

Thank you and should you have any questions, please feel free to contact me at 575 586 7537.

Regards,

Jeff Schoenbacher

From: Schoenbacher, Jeffery

Sent: Tuesday, September 05, 2017 9:42 AM

To: williams.nancy@epa.gov; 'Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)' <Anne.Maurer@state.nm.us>
Cc: Leach, Steven (Steve.Leach) <Steve.Leach@chevron.com>; 'Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us)'
<erin.trujillo@state.nm.us>; Chavez, Tommy M <tchavez@chevron.com>; 'sarah.holcomb@state.nm.us'
<sarah.holcomb@state.nm.us>; Coats, Michael (MichaelCoats) <MichaelCoats@chevron.com>; 'Robinson, Frank'
<Frank_Robinson@golder.com>; Hernandez, Maryalda <Maryalda.Hernandez@chevron.com>; Arellano, Alex
<CVQJ@chevron.com>; Morgas, Cassandra <CPAD@chevron.com>; 'Duran, Tito' <Tito_Duran@golder.com>

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From: Martinez, Armando

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<Anne.Maurer@state.nm.us>

Cc: Schoenbacher, Jeffery < <u>JSchoenbacher@chevron.com</u>>; Leach, Steven (Steve.Leach) < <u>Steve.Leach@chevron.com</u>>; Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us) < erin.trujillo@state.nm.us>; Chavez, Tommy M

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Sincerely,

Armando Martinez

Armando Martinez

Environmental Manager

Mining and Specialty Portfolios Business Unit

Chevron Environmental Management Company P.O. Box 469 Questa, NM 87556 Tel 575 586 7639 amarti@chevron.com

From: Schoenbacher, Jeffery

Sent: Wednesday, September 20, 2017 12:43 PM

To: 'williams.nancy@epa.gov'; 'Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)'

Cc: Leach, Steven (Steve.Leach); 'Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us)'; Chavez, Tommy M;

'sarah.holcomb@state.nm.us'; Coats, Michael (MichaelCoats); 'Robinson, Frank'; Hernandez,

Maryalda; Arellano, Alex; Morgas, Cassandra; 'Duran, Tito'; 'Narciso Holguin'

Subject: RE: Spring 13 Outage

Good Morning Anne and Nancy;

CMI completed the maintenance activities with Spring 13 and 39 WCS and both systems are operational.

Thank you and should you have any questions, please feel free to contact me at 575 586 7537.

Regards,

Jeff Schoenbacher

From: Schoenbacher, Jeffery

Sent: Monday, September 18, 2017 11:08 AM

To: 'williams.nancy@epa.gov' <williams.nancy@epa.gov>; 'Maurer, Anne, NMENV (Anne.Maurer@state.nm.us)' <Anne.Maurer@state.nm.us>

Cc: Leach, Steven (Steve.Leach) <Steve.Leach@chevron.com>; 'Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us)' <erin.trujillo@state.nm.us>; Chavez, Tommy M <tchavez@chevron.com>; 'sarah.holcomb@state.nm.us' <sarah.holcomb@state.nm.us>; Coats, Michael (MichaelCoats) <MichaelCoats@chevron.com>; 'Robinson, Frank' <Frank_Robinson@golder.com>; Hernandez, Maryalda <Maryalda.Hernandez@chevron.com>; Arellano, Alex <CVQJ@chevron.com>; Morgas, Cassandra <CPAD@chevron.com>; 'Duran, Tito' <Tito_Duran@golder.com>; 'Narciso Holguin' <nholguin@entact.com>

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Cc: Leach, Steven (Steve.Leach) < Steve.Leach@chevron.com; 'Trujillo, Erin S, NMENV (erin.trujillo@state.nm.us)'

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<<u>sarah.holcomb@state.nm.us</u>>; Coats, Michael (MichaelCoats) <<u>MichaelCoats@chevron.com</u>>; 'Robinson, Frank'

<<u>Frank_Robinson@golder.com</u>>; Hernandez, Maryalda <<u>Maryalda.Hernandez@chevron.com</u>>; Arellano, Alex

<CVQJ@chevron.com>; Morgas, Cassandra <CPAD@chevron.com>; 'Duran, Tito' <Tito Duran@golder.com>

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Sincerely,

Armando Martinez

Armando Martinez

Environmental Manager

Mining and Specialty Portfolios Business Unit

Chevron Environmental Management Company P.O. Box 469 Questa, NM 87556 Tel 575 586 7639 amarti@chevron.com

From: Schoenbacher, Jeffery

Sent: Wednesday, July 06, 2016 8:06 AM

To: 'barbara.cooney@state.nm.us'; 'Gooden-Jackson.Gladys@epa.go'

Cc: Martinez, Armando; 'Trujillo, Erin S, NMENV'

Subject: NPDES Permit NM0022306

Good Morning;

The purpose of this correspondence is to follow-up with the voicemail that was provided to Ms. Gladys Gooden Jackson (USEPA 7/5/16 11:09 am) and Ms. Barbara Cooney (NMED 7/5/16 11:12 am) regarding total suspended solids (TSS) June result for Outfall 002.

While reviewing the June 2016 sampling results for Outfall 002, Chevron recognized that the TSS result of 63 mg/L exceeded the monthly max (30 mg/L) and average (20 mg/L) for the concentration and load. As a result, the call was made to USEPA and NMED to communicate this information and provide insight into what measures were being taken to address this issue.

Recognizing that TSS is historically non-detectable for Outfall 002, ALS Environmental Laboratory was directed to re-run the sample for TSS. As a result, another sample was taken from the June 8, 2016 sample matrix that is refrigerated and maintained by the sampling technicians. The sample was sent to ALS Environmental Laboratory on July 5, 2016 under a rush status, so that the results can be reported within the June DMRs submittal that is due July 15, 2016. This correspondence along with the re-run results will be part of the June 2016 DMR submittal for Outfall 002.

Should you need any further information please feel free to contact me at 575-586-7537.

Regards,

Jeff Schoenbacher Project Manager

From: Gooden-Jackson, Gladys < Gooden-Jackson.Gladys@epa.gov>

Sent: Wednesday, July 06, 2016 3:50 PM

To: Schoenbacher, Jeffery

Subject: [**EXTERNAL**] RE: NPDES Permit NM0022306

Importance: High

Jeff, I did receive your voicemail notification and I will review and forward this email to the assigned Enforcement Engineer for review and await receipt of the June DMR and documents.

Thanks.

Gladys Gooden-Jackson

Lead EPS, New Mexico State Coordinator
U. S. Environmental Protection Agency (US EPA)
Compliance Assurance and Enforcement Division
Water Enforcement Branch – Region VI
Surface Water Compliance Section (6EN-WC)
email address: gooden-jackson.gladys@epa.gov

(214) 665-7494 (Office) (214) 665-2168 (FAX)

"Just lift up your hands and surrender your heart, tell HIM your worries and HE'LL do HIS part. Let go of the past and your future will start, when you finally let go and LET GOD."

From: Schoenbacher, Jeffery [mailto:JSchoenbacher@chevron.com]

Sent: Wednesday, July 06, 2016 9:08 AM

To: Gooden-Jackson, Gladys < Gooden-Jackson.Gladys@epa.gov >

Subject: FW: NPDES Permit NM0022306

Morning Gladys;

I got your email wrong on this first attempt.

Have a good day.

Jeff

From: Schoenbacher, Jeffery

Sent: Wednesday, July 06, 2016 8:06 AM

To: 'barbara.cooney@state.nm.us'; 'Gooden-Jackson.Gladys@epa.go'

Cc: Martinez, Armando; 'Trujillo, Erin S, NMENV'

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Regards,

Jeff Schoenbacher Project Manager

DMR Copy of Record

Permit

Permit #: NM0022306

CHEVRON MINING INC. Permittee:

Major: Yes Permittee Address: **NEAR QUESTA IN TAOS COUNTY**

QUESTA, NM 87556

Facility Location:

NEAR QUESTA IN TAOS COUNTY

24 - COMP24

RC - Recorder (auto)

RC - Recorder (auto)

QUESTA, NM 87556

CHEVRON MINING INC.

Permitted Feature:

002 External Outfall

1 - Effluent Gross

1 - Effluent Gross

1 - Effluent Gross

1 - Effluent Gross

Discharge: 002-A

Title:

Value NODI

Sample

Value NODI Sample

Permit Req. <=

Permit Rea. <=

Value NODI

Sample

Value NODI Sample

Permit Req.

Value NODI

Sample

Value NODI

Permit Req. <=

Permit Req. <=

COLLECTED SEEPAGE FROM TAILINGS FACILITY

Report Dates & Status

Monitoring Period: From 06/01/16 to 06/30/16 **DMR Due Date:** 07/15/16 Status:

NetDMR Validated

Considerations for Form Completion

MODIFIED PERMIT EFFECTIVE 07/01/2016.

Principal Executive Officer

First Name:

Robert John

President

Telephone:

0.16

1.7

0.0042

0.0022

<=

1 MO AVG <=

3.3 MO AVG <=

.485 MO AVG <=

1 MO AVG <=

0.16

1.7

0.0042

0.0022

19 - mg/L

19 - mg/L

19 - mg/L

28 - ug/L

1.5 DAILY MX 19 - mg/L 0

5.03 DAILY MX 19 - mg/L 0

.64 DAILY MX 19 - mg/L 0

2 DAILY MX 28 - ug/L 0

01/30 - Monthly

99/99 - Continuous

99/99 - Continuous

01/30 - Monthly

01/30 - Monthly

Facility:

575-586-7639

No Data Indicator (NODI)

Last Name:

	Parameter	Monitoring Locatio	n Season	# Param. NOD			Qu	antity or Lo	ading				Qua	lity or Concent	tration			# of Ex	x. Frequency of Analysis	Sample Type	
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	2 Value 2	Qualifier 3	Value 3	Units				
					Sample						=	6.96			=	7.62	12 - SU		01/01 - Daily	GR - GRAB	
0400	400 pH 1 - Effluent Gross 0	0		Permit Req.						>=	6.6 MINIMUM	1		<=	8.8 MAXIMUM	12 - SU	0	01/01 - Daily	GR - GRAB		
					Value NODI																
					Sample	< 5	7.02	<	152.21	26 - lb/d			<	23.6	<	63	19 - mg/l	L	01/30 - Monthly	24 - COMP24	
0053	Solids, total suspended	1 - Effluent Gross	1 - Effluent Gross 0		Permit Req.	<= 10	07.6 MO AVG	<=	161.4 DAILY MX	26 - lb/d			<=	20 MO AVG	<=	30 DAILY MX	19 - mg/l	L 1	01/30 - Monthly	24 - COMP24	
. 0000							Value NODI														
					Sample	< 1.	.24	<	1.24	26 - lb/d			<	0.5	<	0.5	19 - mg/l	L	01/30 - Monthly	24 - COMP24	
951	51 Fluoride, total [as F] 1 - Effluent Gross 0	0		Permit Req.	<= 10	6.1 MO AVG	<=	16.1 DAILY MX	26 - lb/d			<=	3 MO AVG	<=	3 DAILY MX	19 - mg/l		01/30 - Monthly	24 - COMP24		
		V	Value NODI														,				
					Sample	= 0.	.00077	=	0.00077	26 - lb/d			=	0.00032	=	0.00032	19 - mg/l	L	01/30 - Monthly	24 - COMP24	
1002	Arsenic, total [as As]	1 - Effluent Gross	0	P	Permit Rea.		.11 MO AVG	<=	1.67 DAILY MX	26 - lb/d			<=	.207 MO AVG) <=	.665 DAILY MX	-			24 - COMP24	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Value NODI												3		, , , ,		
					Sample	= 0		_	0	26 - lb/d			_	0	_	0	28 - ug/L		01/30 - Monthly	24 - COMP24	
027	Cadmium, total [as Cd]	1 - Effluent Gross	0		Permit Rea.	<= .0	0064 MO AVG	<=	.0096 DAILY MX	26 - lb/d			<=	1.19 MO AVG	i <=	1.79 DAILY MX				24 - COMP24	
			Value NODI												3						
					Sample	= 0	.001788	_	0.001788	26 - lb/d			<	0.00074	<	0.00074	19 - mg/l	ı	01/30 - Monthly	24 - COMP24	
042	Copper, total [as Cu] 1 - Effluent Gross 0	uent Gross 0		Permit Rea.		12 MO AVG	<=	.18 DAILY MX	26 - lb/d			<=	.029 MO AVG	· 	.044 DAILY MX	-		,	24 - COMP24		
· · · -				Value NODI		/ 0		5/1121 11/1/	_0 15/0				.520 1110 7110					o., oo wonding	OOM 24		
					Sample	- 0	.000266	_	0.000266	26 - lb/d			_	0.00011	_	0.00011	19 - mg/l		01/30 - Monthly	24 - COMP24	
1051	Lead, total [as Pb]	1 - Effluent Gross	0		Permit Reg.		308 MO AVG	<=	.463 DAILY MX	26 - lb/d			- <=	.057 MO AVG		.086 DAILY MX			•	24 - COMP24	
.001	Leau, ioiai [as i b]	i - Liliudiii G1055	U		· · · · · · · · · · · ·		JOO INIC AVO		.TOO DAIL! WA	20 - Ib/u			\ <u>-</u>	.007 WO AVO	, \=	.000 DAILT WA	15 Hig/I		01/00 Monthly	24 OOM 24	

26 - lb/d

03 - MGD

26 - Ib/d

26 - lb/d

0.39

4.11

0.01

0.363

0.0000053

.0005 DAILY MX

<=

<=

8.07 DAILY MX

14.7 DAILY MX

.58 DAILY MX

Req Mon DAILY MX 03 - MGD

Submission Note

71900 Mercury, total [as Hg]

01055 Manganese, total [as Mn]

01062 Molybdenum, total [as Mo]

50050 Flow, in conduit or thru treatment plant 1 - Effluent Gross

01092 Zinc, total [as Zn]

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

0.39

4.11

0.01

0.287

0.0000053

5.38 MO AVG

9.6 MO AVG

.58 MO AVG

Req Mon MO AVG

.000336 MO AVG <=

Edit Check Errors

Comments

	Parameter	Monitoring Location	Field	Type	Description	Acknowledge	
Code	Name	Monitoring Location	rielu	Туре	Description	Acknowledge	
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes	
00530	Solids, total suspended	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes	

Refer to Internal CMI ID# 060116. Results with "<" reflect a result that was non-detect per the lab report with a result above or equal to the MQL. Results with "0" reflect any individual analytical test result that is below the MQL. A notice voicemail was provided to Ms. Gladys Gooden Jackson (USEPA 7/5/16 11:09 am) and Ms. Barbara Cooney (NMED 7/5/16 11:12 am) regarding total suspended solids (TSS) June result for Outfall 002. While reviewing the June 2016 sampling results for Outfall 002, Chevron recognized that the TSS result of 63 mg/L exceeded the monthly max (30 mg/L) and average (20 mg/L) for the concentration and load. As a result, the call was made to USEPA and NMED to communicate this information and provide insight into what measures were being taken to address this issue. Recognizing that TSS is historically non-detectable for Outfall 002, ALS Environmental Laboratory was directed to re-run the sample for TSS. As a result, another sample was taken from the June 8, 2016 sample matrix that is refrigerated and maintained by the sampling technicians. The sample was sent to ALS Environmental Laboratory on July 5, 2016 under a rush status, so that the results could be reported within the June DMRs submittal that is due July 15, 2016. The email correspondence has been included with this DMR, thereby providing an explanation on the TSS result. Sample rerun 7/5 for confirmation and resample 7/1 to compliance. Receipt attached. Results received 7/15/16 under ALS work order number 1607079, the project included the 6/9/16 sample event and a sample that was taken that day (7/1), both were non-detect results. As a result, it is believed that the 63 mg/L was a lab error, basing that conclusion on the rerun and Outfall 002 history of compliance with TSS.

Attachments

Name	Туре	Size
TSSRerunALSReport1607079070116.pdf	pdf	1068878
USEPANMED070616EmailonTSS.pdf	pdf	50228

Report Last Saved By

CHEVRON MINING INC.

User: CMI Date/Time: 2016-07-18 11:10 (Time Zone: -05:00)

Name: Jeff Schoenbacher E-Mail: kbzj@chevron.com

		Samp	le Condit	ion Form (Liquid)
Analyst: M 5H				
Analysis Date: <mark>8/3</mark>	0/17			Method: Prep
	Samp	ole Condition (V	/isual Appearance of Analysis Aliquot at Time of Prep)	
Work Sample Order ID		рН	Color	Remarks
1708266		<2	clear	none
1708316				high rad activity
1708383	4			none
	7			
	9			
	11			
	13			
	16			
	18			
	20			
1708493	1			
1708508	1			
1708534	4			
	8			
上	11			
1708555	3		Ţ	
1 7			tan	Sediment
	11 1		L	1
	15		clear	none
	19		1	

		Sample	• Condit	ion Form (Liquid)					
Analyst: I-m-	Analyst: Huntre Lar DAN								
Analysis Date: 8/	22/17			Method: Resza (TOTAL & GFPC)					
		Sample	e Condition (V	(isual Appearance of Analysis Aliquot at Time of Prep)					
Work Order	Sample ID	рН	Color	Remarks					
1708266	١	La,	CIEAR	N/A					
1708312	1								
1708371	ලි								
-	11		<u> </u>						
1708408	1								
4	2_		V	V					
1708410	1		Cloudy	Reduced Aliquot due to High Care distinct					
1708412	1	4	Cloudy	Bipnasic, supernate used for testing Reduced Aliquot due to High Co. 24 living Brown/ white sediment) Debris Peduced Volume Aliquot taken due to comiked volume.					
			0.000						
				8/22/17					
				8/22/17					
<u> </u>									

			e Condit	ion Form (Liquid)						
Analyst: Stev	an D. W	rite								
Analysis Date:	8-23-17		Method: Ra 228							
RA170823-1	Sampl	Sample Condition (Visual Appearance of Analysis Aliquot at Time of Prep)								
Work Order	Sample ID	pН	Color	Remarks						
1708223	19	12	clear	NONE						
	20									
	21									
1708244	(
1708266	(
1708312	(1							
1708331			clarify							
1708352	1		clear							
1708390	1									
+	2									
1708408	1									
7	2		1 4	V						
1708410	١		cloudy	Shake and pour of aliquot. Then centrifuged remaining sample and divided 40/40 between 228/226.						
1708412	(clear	1 1 1						
1708415	i			NONE						
	2									
	3									
	4									
	5									
1	6		1 +	✓						